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ABSTRACT

This report describes an inquiry into the work attitudes and career decision making skills of 754 sophomores in seven rural and one urban high school in Maine. The study is the first part of a planned 7-year longitudinal study that will interview these students again when they are seniors and then again 5 years later. The eight papers in the study, written by separate researchers, include reviews of the literature and analyses of the data found in the study together with thoughts and recommendations that should be considered when working with youth as well as adults in career transition. The papers included are the following: "Overview: Introduction to the Study" (Thompson); "Comments and Observations Regarding the Maine Work/Family Integration Study of 1987" (Hoyt); "The 1987 Employability and Work/Family Integration Survey: Introduction" (Freeman); "Aspirations of Rural Youth: A Review of the Research" (Cobb, MacBrayne); "Career Decision Making: Enhancing Life Work Options" (Ryan); "Career Interest Assessment in the Maine Employability and Work Family Integration Survey" (O'Shea); "Life/Work Management: Autonomy and Problem Solving" (Shannon); "Preparing Adolescents for Their Future Roles: Combining Work and Family" (Kimball); "Youth Transition: Work Maturity Basic to Employment Entry and Success" (Drier, Ciccone); "Job Seeking Skills: Preparing Youth for Change" (McCormac); and "Conclusions and Implications" (Freeman). Appendices include recommendations, the survey instrument, competency areas, and characteristics of participants. (KC)

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Research of 1987 Sophomores from
Eight Maine High Schools Conducted
by the Maine Occupational Information
Coordinating Committee & the Rural
Career Development Group (Maine
School Administrative District #44)

A Study of Work *Family* *Integration Issues*

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Published byThe Maine Occupational Information
Coordinating Committee, Maine Department of Labor

May 1990

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For additional information regarding this study, contact the Maine Occuptaional Information Coordinating Committee at 207-289-2331.

FOREWORD

The *1987 Employability and Work Family Integration Research Study* provides an excellent focus for career development practitioners to review their current practices for delivering career information and guidance services to Maine youth.

The study, based on the perceptions of 754 Maine youth from eight schools, presents, through reviews of the literature and analyses of data, the writers' thoughts and recommendations that should be considered when working with youth as well as adults in career transition.

The approach to the development of this report is unique in that nationally recognized experts agreed to assist the MOICC in the writing of the subreports.

I encourage you to read this report and consider its applicability to your community, school, or agency setting in the delivery of career information and guidance in Maine.

Charles A. Morrison, Commissioner
Maine Department of Labor
Chair, MOICC

With Appreciation . . .

To the Authors:

As project manager I extend my appreciation to each author for the personal contributions made to the *Work Family Integration Study*.

Each author volunteered time to review an assigned area, prepare a focussed review of the literature, and to analyze data gathered on a sample of Maine youth. The analysis and recommendations made by each will be taken into consideration by Maine educational policy makers.

The authors, through their sharing of expertise, brought life and truth to this major undertaking. Except for a few minor editing considerations, each author's work is published as presented.

Again, my thanks for the professionalism and commitment of each author.

Stephen D. Thompson

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This research study was funded and published by the Maine Occupational Information Coordinating Committee (MOICC). The MOICC is an inter-departmental committee created by federal and state statute to coordinate the development and dissemination of career and occupational information for career guidance and vocational program planning purposes.

In its enabling state legislation, the MOICC is charged to provide support to career education programming and initiatives in the State of Maine. This study, through its articulation of career development concepts and perceptions of Maine youth, provides a research primer for review by state and local practitioners when planning and implementing career guidance programs throughout Maine.

The Maine Occupational Information Coordination Committee insures equal employment, equal educational opportunities, and affirmative action regardless of race, sex, color, national origin, marital status, age, or handicap. The views expressed in this report may not represent the official views of the Maine Occupational Information Coordinating Committee and it statutory members and their agencies.

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Overview:
Introduction to the Study

Stephen Dexter Thompson
Maine Occupational Information Coordinating Committee

Work

Family

OVERVIEW: Introduction to the study

Stephen Dexter Thompson
Maine Occupational Information Coordinating Committee

The Work Family Integration Study of 1987 surveyed 754 sophomore students from eight schools. Seven schools had been recruited by the Maine Occupational Coordinating Committee (MOICC) to participate in the formation of the Rural Career Development Group (RCDG), which served to bring focus to career development issues for rurally isolated Maine school systems. The eighth school was one of Maine's larger urban high schools that had been involved in comprehensive career education programming during the mid-seventies under the Career Education Incentive Act. The following chart depicts the participating schools, the school size, and the number of sophomore survey respondents.

Schools Participating in Survey by Population

Name Of Community,	School Population,	and Number of Sophomores
Bethel	606	77
Bingham	223	23
East Corinth	373	90
Eastport	224	47
Howland	312	78
Lincoln	439	105
South Portland	1208	245
Sullivan	387	89

The surveys were administered to sophomores in April of 1987. The administration included (1) the two-part Employability and Work/Family Integration Survey, (2) an essay on work/family integration at age 30, and (3) the *Career Decision Making System* (CDM) (Harrington and O'Shea, 1982).

The Employability and Work/Family Integration Survey was designed in two parts. Part One collected personal information and perceptions from survey respondents which would allow researchers the opportunity to form student profiles using variables such as gender, program of study, self-perceived work environment, grades, and earnings to define relationships between student profiles/groupings.

Part Two was designed using the pre-employment competency areas which are defined in Pre-Employment Competencies System (Youth Credentials Work Group, 1985). The competency system was developed in 1984 using the four major competency areas of (1) Career Decision Making, (2) Life/Work Management, (3) Job Getting Skills, and (4) Work Maturity. In addition to these four competency areas, MOICC staff with the assistance of Dr. Gayle Kimball of the California State University at Chico, developed a fifth competency area, Work/Family Integration Skills.

With the continued assistance of Dr. Kimball, an essay topic was developed to assess the thoughts of students to issues relating to work and family integration. The essay topic was as follows:

- In a short essay, please describe what you believe will be a typical work week when you are thirty. Describe your work, your lifestyle, and how you combine family (if any) with work responsibilities and pressures.

The third administrative part of the study was the completion of the CDM. Developed by Thomas Harrington and Arthur O'Shea (1982), this instrument, among other tasks and outcomes, assesses individual career interests within six work environments--(1) Crafts, (2) Science, (3) Artistic, (4) Social, (5) Business, and (6) Clerical. The six work environments are somewhat comparable to John Holland's (1973) theory of career development.

Through the administration of the CDM, researchers were able to obtain Holland-type codes of respondents derived from an instrument which reliably indicates preference for certain work environments. These results were compared with information gained in Part One of the survey instrument which called for students to rank-order preferences for work environments, using Holland descriptions.

Purpose

The 1987 Employability and Work/Family Integration Survey represents a collaborative effort by the MOICC, the College of Education of the University of Maine, and the Maine Department of Educational and Cultural Services. The intent of the research team is to assess, over time, the career development and life/career aspirations of the 1987 sophomore. The 1987 survey is a beginning that will include continued surveys through their senior year, and then concluding with a follow-up survey, five years following graduation from high school. Initial findings will provide a base for assessing changes in career maturity, decision making skills, and view on issues of employabilty and work/family integration. Simply stated, the short-term goals of the study are:

- 1. Prepare a baseline set of data for use within a continuing career development study.
- 2. Add insight for state and local educational planners, university-level preparation program educators, and appropriate others to develop strategies to achieve excellence in the delivery of career guidance services, kindergarten through adulthood, in Maine.
- 3. Provide local educational agency personnel with individual student data to assist teachers and counselors in their work with students.
- 4. Evaluate the instrumentation used in this study for replication in other school systems.
- 5. Utilize findings to recommend specific curriculum activities for students with similar response profiles.
- 6. Give information to parents in order that they might become more effective advocates for the career development and aspirations of their children.
- 7. To contribute to the growing body of knowledge on the life and career aspirations of high school-aged youth with its relations to employability and work/family integration.

Process and Instrumentation

The survey instrument was originally employed in 1984 and titled *The 1984 Pre-Employment Competency Survey*. Designed by Stephen D. Thompson and Michael D. Shannon, the survey was administered to seniors graduating from fifteen Maine high schools during the spring of 1984. In the 1987 revision, the instrument was divided into two sections with the new questions added to Part One to account for work/family issues, and the Work/Family Integration Skills competency was added to Part Two. The format of the instrument was redesigned to ease completion by respondents for easier codification by data-entry personnel. In Appendix B will be found a copy of the instrument.

In February of 1987, counselors from participating schools attended an overview presentation on the use and administration of the survey. Procedures were discussed for the administration of the instrument and responsibilities of local educational agency personnel were outlined. In April of 1987 the survey was administered to the 754 sophomores at the participating schools. Responses were recorded on computer tape by data entry personnel of the Maine Department of Educational and Cultural Services. Dr. Michael D. Shannon wrote the initial job language for the computer analysis with University of Maine computing consultant, Wayne Persons, assisting in editing and rewriting programs to ensure desired outcomes. University of Maine Doctoral intern, Thomas Earley, under the direction of Dr. Stanley Freeman, assumed responsibility for data processing coordination at the University of Maine computer center in Orono.

To gain maximum benefit and insight, the project coordinator, Stephen D. Thompson, asked other nationally recognized experts in career development and work/family issues to assist the MOICC in the project at hand by writing subreports and commenting on survey findings. The following is a list of participating authors and their topics.

- **Dr. Kenneth B. Hoyt**, Distinguished Professor, Kansas State University: *Comments and Observations Regarding the Maine Work/Family Integration Study of 1987.*
- **Harry Drier**, Research Scientist, The Center on Education and Training for Employment, The Ohio State University: *Youth Transition: Work maturity basic to employment entry and success*. With Janet Ciccone.
- **Dr. Arthur O'Shea**, University of Masachusetts-Boston, Co-author of the Harrington/O'Shea Career Decision Making System: *Career Interest Assessment in the Maine Employability and Work/Family Integration Survey.*
- **Dr. Gayle Kimball**, Professor of Women Studies, California State University at Chico: *Preparing Adolescents for Their Future Roles: Combining work and family.*
- **Dr. Mary Elizabeth McCormac**, Program Consultant, National Occupational Information Coordinating Committee, Washington, DC: *Job Seeking Skills: Preparing youth for change*.
- **Dr. Charles W. Ryan**, Professor of Education and Chair, Department of Educational Leadership, College of Education and Human Services, Wright State University, Dayton, Ohio: *Career Decision Making: Enhancing life/work options.*
- **Dr. Michael D. Shannon**, Assistant Professor and Coordinator of College Student Personnel and School Counseling Programs, Education Division, The College of Saint Rose, Albany, NY: *Life Work Management: Autonomy and problem solving.*
- **Dr. Robert A. Cobb**, Dean, College of Education, University of Maine, Orono, ME: *Educational and Occupational Aspirations of Rural Youth: A review of the research*. With Pamela S. MacBrayne.
- **Dr. Stanely L. Freeman**, Professor of Education, College of Education, University of Maine, Orono, Maine:
- **Janet Ciccone**,Program Associate, The Center on Education and Training for Employment, The Ohio State University: *Youth Transition: Work maturity basic to employment entry and success*. With Harry Drier.
- **Pamela S. MacBrayne**, Special Assistant to the President, University of Maine at Augusta, Augusta, ME: *Educational and Occupational Aspirations of Rural Youth: A review of the research*. With Robert Cobb.

Comments & Observations Regarding the Maine Work/Family Integration Study of 1987

Kenneth B. Hoyt
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Work

Family

COMMENTS AND OBSERVATIONS REGARDING THE MAINE WORK/FAMILY INTEGRATION STUDY OF 1987

Kenneth B. Hoyt
University Distinguished Professor
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Introduction

Like most other "academaniacs," my usual tendency is to study research reports in a very critical manner in order to learn how much confidence I can place in the "new truths" such reports claim to have produced. My first reading of the Maine Work/Family Integration Study of 1987 was done in such a manner. Had this reaction paper been written based on that reading, it would look quite different from what appears below.

After reflecting for a considerable period of time regarding this report, I concluded that this is, indeed, a unique kind of undertaking. Its greatest values derive from considering what was done, not in noting the specific research findings. It deserves to be read in an unhurried, reflective manner. Only if done in such a manner can one grasp its basic importance and value as a contribution to the literature.

Careful reading of the manuscript leads to three bases for reflective thought. These are: (1) The conceptual strategic contribution of the study; (2) the development of instrumentation for the study; and (3) the collaborative nature of this undertaking.

Conceptual Strategic Contributions of the Study

While never stated inexplicit form, those responsible for this study appear to have several strategies in mind, each of which holds implications for other States. Only the most obvious of these will be identified here.

- First, it seems clear that this study was designed, in part, as a means of gaining acceptance of the Maine Occupational Information Coordinating Committee operations by (a) rural school districts and (b) professional school counselors in

Maine. This was accomplished through number of sub-strategies including (a) making the Career Decision Making System (a part of the Maine OICC services) one of the prime data-gathering instruments, holding potential for immediate use in studying other data; (b) selecting seven rural school districts and contrasting data from these systems with those from the most highly developed career education program in Maine (thus making it almost sure that the need for the Maine SOICC in rural Maine school districts could be demonstrated); and (c) using career development literature familiar to many counselors as part of the rationale for the study. This kind of "getting-a-foot-in-the-door"strategy appears to have been very effective. Other SOICCS would do well to reflect on what was done here.

- Second, by dividing the basic data collection instrument into two parts--one aimed at demographic/career development perception items and the other at student perceptions of need for employability skills development--the researchers were able to collect a great deal of immediately useful and interesting data. Thus, a quick turn-around time for feedback both to participating school districts and to those responsible for approval of further work on this study was assured. For studies such as this one, where longitudinal data collection efforts are envisioned over a period of years, it is often essential that the need for some kind of interesting--and probably encouraging--feedback be provided. This need was met well in the strategies used here.
- Third, by involving a sub-study of judgements made by classroom teachers (who will be the prime implementers of the system if it is made operational), a series of data holding good face validity for other Maine classroom teachers has been accumulated. The researchers now have available an abundance of data consisting of teacher judgements regarding (a) what is important to teach; and (b) the grade levels at which teachers believe it is appropriate to teach these things. This is bound to be helpful of the researchers now attempt to convince teachers in other school districts to implement the Maine Employability Skills Development Program.
- Fourth, by involving highly respected career development experts both from Maine and from other parts of the Nation in writing parts of this report, the researchers have utilized yet another clear strategy in gaining acceptance for--and avoiding criticism of--their efforts. Judgements of the Maine experts are particularly important here. The fact that these other experts have allowed their names to be associated with this study should help the researchers convince others that they are engaged in a worthwhile effort deserving of further support.

Development of Instrumentation for this Study

These researchers have drawn heavily on earlier work completed in Maine by the Youth Credentials Work Group of the Maine Department of Labor. By expanding on this earlier work, they have developed five broad areas of employability and work/family integration, along with twelve specific competency areas. This has led to development of a very unique scheme of five interrelated data colection efforts.

First, Part I of the "Student Survey" consists of a combination of demographic and career development items. Using data from this part of the survey instrument, the researchers have developed an easily useable means of assessing the nature and realism of current career plans/aspirations, the nature and amount of past jobs held by students, and work/life values of the 10th grade students involved in this data collection effort. By relying entirely on self- perceptions of respondents, some of the resulting data are, admittedly, soft and in need of verification. While this is being done, the researchers have amassed a set of data immediately useful in drawing statewide attention to the needs of rural youth for assistance in the career development process. By including some items clearly related to concerns of many adults in Maine (e.g., "Do you think your career plans can be met by employment in Maine?") the immediate public relations value of these data is apparent.

Part II of the "Student Survey" is equally innovative in nature. Here, respondents are asked to rate each of 64 "employability skills" in terms of its relative importance as perceived by the 10th grade students who served as respondents. The authors have assumed that, if 10th graders indicate a given skill is important for them to have, the school district should attempt to provide it prior to high school graduation. This is obviously open to question by those who recognize that teaching such skills will inevitably become part of the adult lifelong learning efforts in the years ahead. Perhaps it would be most fruitful to focus on appropriateness of the skills rather than the age(s) at which such skills should become available to youth and adults. In any event, the potential usefulness of this instrument containing these 64 employability skills is great indeed. It represents an important contribution to the literature independent of whatever may be learned from analyzing the data themselves.

The 64 items in Part II are so specific they can be grouped into a variety of different categories depending on one's conceptual orientation to career development. The authors have used their own preferred career development model. With the data available in raw-score form on an item-by-item basis, those with other kinds of career development models could also find these data useful. This is one of the clearest contributions to the career development movement made by this study. It should be appreciated by all of us.

A very unique part of the data collection instrument involved asking each respondent to write a 250-word essay describing what he/she believes will be a typical work week for him or her when 30 years old. The prime utility of these data will obviously be to compare them with followup data obtained from these same persons when, in fact, they are 30 years old. If and when this is done, my hunch is the resulting analysis will, once again,clearly demonstrate that, at age 16, most youth have very unclear and unrealistic notions regarding the worklife they will be experiencing as mature adults. This part of the data collection efforts illustrates extremely well a basic principle of student survey research; namely, if the researchers do not have clear plans in mind with respect to how data will be analyzed and used, the collection of a particular kind of data should be questioned. Apparently, the researchers plan to compare data from these essays with various kinds of demographic data collected in Part I of the "Student Survey." It is not clear to me how this will be either done or interpreted.

A sample of Maine teachers (apparently drawn from the same high schools as the 10th graders participating in this study) was also administered an instrument consisting of the 64 employability skills included in Part II of the "Student Survey." For each skill, the teacher was asked to judge: (a) its importance as a high school learner outcome; (b) the grade level (junior or senior high school) in which it should be taught; and (c), the subject matter area in which the concept is most properly infused.

While this is obviously an innovative way of motivating teachers to implement the teaching of these employability skills, three important considerations must be mentioned. First, it seems quite likely that, in the case of several of these skills (e.g., "describe the current labor market"; "divide work tasks in the family setting evenly"; "listen carefully and openly to the needs of others") a need will exist to teach these skills with differing emphasis at several grade levels. As with the teaching of such skills as "sentence construction," there is a need to teach the skill at several levels depending on the maturity and readiness of the pupil.

Second, it is equally clear that most of these skills could and should be infused into more than one subject-matter area. Hopefully, when data are analyzed and interpreted, this will be recognized and emphasized by the researchers.

Third, while not included as a research question in the teacher survey, it is obvious that, with the way these 64 employability skills have been written, coupled with the ways the researchers have already grouped them, it would be possible to consider teaching them to high school students as a separate course rather than by infusion into each subject matter area. Here, the researchers have created for themselves an ideal opportunity to contribute toward solving this problem by setting up contrasting treatment groups--one emphasizing infusion and the other the separate course approach--both in terms of student acquisition of competences and in terms if overall changes in teacher/counselor participation in the career development effort.

In spite of one's position on the kinds of conceptual questions raised above, all should agree that this effort to include teachers as respondents in the study holds positive potential for motivating these and other teachers to use the results once they become available. It was a wise, appropriate, and proper move.

The Collaborative Nature of this Undertaking

The most valuable lessons to be learned from this research are those regarding the clever and innovative ways the researchers consciously made this a truly collaborative effort involving almost all the kinds of "actors" who, in the long run, will determine the extent to which the data will be used. It is in this domain where the other state departments of education in general and individual state SOICC operations can learn the most.

Without exception, each member of the writing team has contributed some expertise in her/his written document that serves to further justify and substantiate both the need for this study and the data collection procedures themselves. There is much to be learned from their writings that could serve as a basis for improving upon the research design for this study when it is repeated in other states.

As Freeman notes in his paper, all authors have not interpreted the data in the same way. Thus, there are some apparent inconsistencies in the perceptual views presented. This kind of variation is inevitable whenever persons not involved in the actual design of instruments and the data collection process are asked to comment on the results. The value of the study is not lessened because this has happened. On the contrary, the obvious presence of variation in the way findings are interpreted will motivate the careful reader to study the data more intently by himself/herself.

Almost every kind of person who, eventually, will be responsible for using the results of this study has been invited to participate in some way in the total effort. This includes some of the most respected educators in Maine as well as clearly identifiable national experts in various aspects of career/life development. As noted earlier, it has also included practicing classroom teachers. Collectively, the voices of those participating in this study should produce strong support for its continuation as a longitudinal project.

One of the important contributions of this study was to demonstrate, in an unusually clear manner, the potential State Occupational Information Coordinating Committees (SOICCs) have for initiating and implementing collaborative career development efforts on a statewide basis. Because of its unique structure, a SOICC can work equally well with school administrators, classroom teachers, counselors, career and vocational educators, private sector persons, and various state/local government agencies. With the process of career development becoming increasingly important on a lifelong basis, this kind of SOICC potential needs to be recognized and utilized. This study provides an excellent illustration of how this was done in one State.

Concluding Remarks

The observations found in this brief piece have been intended primarily as an effort to help readers look beyond the specific data derived from this investigation to some of their broader implications. In striving to reach this goal, it is not my intent that other ways of viewing the total study should be ignored. On the contrary, it is my hope that the thoughts found here will stimulate many others to engage in their own reflective thinking process regarding the implications and broader significance of this research effort.

As each of us reflects upon these writings, it seems to me that at least one thing will become crystal clear--namely, the creative, innovative, untiring professional leadership provided by Mr. Stephen D. Thompson and Dr. Michael D. Shannon. We are all deeply in their debt.

The 1987 Employability & Work/Family Integration Survey: Introduction

Stanley L. Freeman, Jr., Ed.D., N.C.C.
Professor of Education, University of Maine

Work

Family

THE 1987 EMPLOYABILITY AND WORK/FAMILY INTEGRATION SURVEY

Introduction

Stanley L. Freeman, Jr., Ed.D., N.C.C.
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Maine is a hotbed of interest and activity in "raising aspirations" as the 1980's anticipate the changing economy of the 1990's. Governor John McKernan has declared this to be a priority effort of his administration in order to prepare Maine for its place in the global economy. Project A.S.P.I.R.E. has been launched as a joint effort of the Department of Labor and the Department of Human Services to prepare adults for economic and social self-sufficiency. The STAR Program of the Department of Labor aims to provide unemployed individuals with training opportunities that lead to jobs in stable and expanding industries. Meanwhile, the Department of Educational and Cultural Services has announced an initiative to assist 8th graders to forecast a future for themselves through Planning to Realize Educational Potential (PREP). A broader effort to build partnerships between schools and business is known as the Aspirations Compact. At the University of Maine, research and public service efforts targeted to aspirations raising are underway in the College of Education and the Cooperative Extension Service.

In this context, it is timely that the Maine Occupational Information Coordinating Committee is releasing this report of its 1987 survey of sophomores in eight Maine high schools. They were asked questions to disclose their thinking about their futures. The implied goal of aspirations raising efforts is for high school youth to crystallize an image of a future in which they will be more educated and employed at a higher level than have been their parents. The 1987 survey tells us something about the process and the problems of forming a futurized self-image, and can inform policy planners about what may be the more significant tasks in trying to influence aspirations.

The Nature of the Study

The study was undertaken as the first phase of a longitudinal investigation of some elements of career maturity behaviors of sophomore students in eight Maine high schools. Seven of the schools are classified as "rural" while one is a Maine-style urban school. The intention is to resurvey these same students again when they are seniors and still later five years beyond graduation. One variable to be investigated is the relative effects of three different computerized guidance programs being introduced in the rural schools.

"This study should provide needed insights and recommendations leading to improved career development activities within Maine's public schools." (Memo from Steve Thompson, 4/27/87) It is important to clarify the boundaries of the survey from which insights and recommendations may be derived. The survey inquired into the opinions of students as to the importance of certain career-related competencies which are alleged to be related to career planning and employability. At no place in the survey were actual competencies measured. Therefore, caution should be exercised by readers in interpreting the actual state of career readiness of Maine sophomores, and in judging the effectiveness of Maine schools in producing competencies in career planning.

The survey was in five parts including a survey of teacher perceptions which is not reported herein. Part I collected descriptive information about the students including their current plans for future education and work. Part II invited them to list the "importance to you" of 64 knowledges and skills derived from a Maine JTPA 1984 publication entitled *Pre-Employment Competencies System*.Part III consisted of a 250 word essay assigned in English classes on the topic of "a typical work week when you are thirty." Part IV was the *Harrington-O'Shea Career Decision Making System*.

Overview of the Report

The papers which follow present analyses of selected portions of the survey data together with relevant theoretical background materials. The paper by Cobb and MacBrayne introduces the reader to the broad field of aspirations research and clearly summarizes the conflicting nature of findings from studies across the nation. They emphasize the important distinction between aspirations and expectations, and suggest that actual attainment is still different from either. They note five "interesting aspects of the findings" of the present study and conclude by raising the fundamental question of what should be the ultimate goal toward which individuals are encouraged to aspire by our educational system.

Ryan, assuming that economic development is a desirable societal goal, writes about the dynamics of individual career decision-making which lead toward a labor force that will support that goal. He notes some contradictions between the realities of the labor market and the rhetoric of aspirations-raising. But he reasserts the importance of career education as a curricular response to the need for reality in career planning and achievement. His analysis of the survey data is set against theories of career decision-making and leads us to more than a score of recommendations for consideration by policymakers and educators.

O'Shea's paper is an analysis and discussion of the group data on the the *Career Decision Making System* for the sophomore sample. He comments on gender differences, rural versus urban differences, and expressed versus measured interests. He also remarks on the disparity between the career choices expressed by the sophomores and the reality of the Maine labor market.

Shannon provides an important reminder that career is more than work and that it requires competency in a range of life management skills to achieve a healthy and satisfying balance among roles. He demonstrates the necessity of using a combination of stage and task developmental theories in analysis of career competencies and remind us of the significance of attending to individual learning styles as we attempt interventions. This thoughtful analysis of the sophomore data leads into recommendations for both instruction and research.

Continuing the discussion of multiple life roles, Kimball directs our attention to family. She reviews the transformations underway in family structures in contemporary society and the accompanying shifts in perceptions of family-work interrelationships. She notes the absence of significant changes in gender roles to accompany the new family structures. Then she compares the family futures envisioned by the Maine sophomore sample in their essays with comparable data from California college students noting certain unrealities in these previews of coming events. Finally she offers a Swedish model for a curriculum in family education with recommendations for its implementation in America.

As youth move from the parental family and school into the work place they must present themselves as having certain work habits and attitudes essential to maintaining employment. Drier and Ciccone discuss these employability skills, especially "work maturity", as something that thus far has fallen through the cracks of pre-employment education. Noting the shrinking youth cohort, they anticipate that soon employers must tap a labor pool -- unemployed youth -- who lack work maturity skills and attitudes. Pointing to the experience of JTPA, they inform us that such skills can be taught and they review a wide range of programs which have attempted to do so, without any standardization. They then analyze the Maine survey data while reminding us that we are inquiring into the attitudes of immature 15 - 16 year olds and should not place too much emphasis on specific scores. They recommend caution in policy development and suggest some useful research to achieve more knowledge about this aspect of career maturity.

Finally, McCormac reviews that portion of the study which addresses the tasks of seeking employment. She appropriately points out that youth tomorrow will land their jobs in a work world very different from the current decade. However, she does not suggest that job seeking skills will be any different as she reviews the literature on the four skill areas: job search, completion of resumes and applications, contacts, and interviewing. Her review of the Maine survey data leads to some recommendations for expanded research.

In a post-script section, Freeman discusses selected items from the above papers in the context of the Maine scene and draws implications for practitioners, for professional education, and for research.

Aspirations of Rural Youth: A Review of the Research

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Work

Family

ASPIRATIONS OF RURAL YOUTH:

A Review of the Research

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Introduction

Aspirations of youth have long been of interest to educational researchers and practitioners. In exploring educational or occupational aspirations, researchers generally have examined such variables as gender, community size, place of residence, race, socioeconomic status, maturational effects, determinants of and influences on aspiration development, or a combination of these. This review of the related research focuses principally upon studies which have examined aspirations of rural youth in the United States.

Defining the Terms

When reviewing the literature on adolescents' aspirations, it is striking to note the abundance of research which occurred in the 1960s and early 1970s. It is equally striking to note the paucity of research on this subject in the later 1970s and 1980s. Research in the area generally differentiates between and compares aspirations and expectations. Typically, aspirations have been defined as an individual's desire to obtain a status object or goal such as a particular occupation or level of education. Expectations are the individual's estimation of the likelihood of attaining these goals, plans, ambitions or dreams.

The conceptualizations of these terms is credited to Kuvlesky and Bealer (1966) in their attempt to define occupational choice which they consider to be a reflection of an individual's aspirations or preferences concerning work statuses. A few studies compare aspirations and expectations to attainment which is defined as the behavioral realization of the goal.

Historical Overview of the Aspirations Research

Underlying much of the research is the implicit assumption that aspirations and expectations are in some way predictive of actual attainment in adult life, and that there is a process which begins in childhood and might be subject to social intervention if we understood it better. Aspirations have been considered an essential component in the motivation to achieve, operating somewhat like a self-fulfilling prophecy. Much of the early research on aspirations or status projection and attainment was concentrated in the midwestern states and involved primarily white, middle-class, high school students. Due to the nature of those populations, few blacks or lower socioeconomic status youth were included. By using high school students, the most deprived youth were often excluded by virtue of the fact of their non-attendance at school. Furthermore, most of the studies focused largely or entirely on boys because of an assumption that careers and status attainment are more important for males or that the status of females is determined by that of their husbands (Coleman, 1976). More recent studies have included low-income youth, minority students, and girls.

Most of the reported research has focused on a particular state or region, with few studies using national data. Because the studies used various instruments for measuring the variables examined and because rural cultures vary from state to state (and even within states) one should be cautious in generalizing the findings from one region to another. Because much of the research is somewhat dated, one must be particularly cautious when making comparisons. The societal changes which have occurred since the 1960s and the melding of culture through travel, telecommunications and mass media also suggest that caution be utilized in interpretations.

Aspirations and Expectations

One clear conclusion from the literature is that aspirations of youth are usually higher than their expectations. Those studies which examined these variables longitudinally have reported that although expectations generally declined with age, aspirations remained high. Boyd, Faris, and Shoffer (1984) examined a sample of low-income, southern rural young adults over the course of three time periods which approximated the three developmental stages suggested by Ginzberg, Ginsburg, Axelrad, and Herma (1951): fantasy, tentative, and realism. Over time, occupational aspirations declined only slightly while occupational expectations declined dramatically for each time period. Their study raised the question of why the young adults in their sample continue to dream dreams that they never expect to fulfill. Kuvlesky's work (1970) also produced evidence that aspirations do not become significantly more realistic as youth mature, at least within the limited time frame of the high school years, countering Ginzberg's theory. Coleman (1976), whose subjects also encompassed Ginzberg's three stages (from preadolescence to late adolescence), reported substantial declines in occupational aspirations, supporting Ginzberg. Again, expectations declined more than aspirations.

In a study of 614 young adults, Sollie and Lightsey (1975), found that aspirations increased during the time period from 1966 (as tenth graders) to 1972, when they had achieved full-time employment status. Expectations during this time period decreased. Both aspirations and expectations were substantially higher than actual occupational attainment. In their study, neither race, sex, nor residence (small city, small town, rural farm, rural non-farm), when examined, altered the nature of the relationship observed for the sample as a whole. Cosby (1978) found that the rural youth in his study, when examined as adults, showed stability in occupational aspirations, a decline in occupational expectations, and an increase in educational aspirations. Educational attainment in early adulthood was reportedly influenced by career preferences developed during their high school years.

Dunkleberger (1984) found a different pattern in his longitudinal study that compared youth in their tenth grade year to their early 20s. His data, obtained from 1,000 young adults raised in rural areas of six southern states, showed a decline in aspirations over this time period. Educational goals were affected more than occupational goals, perhaps, in his opinion, because educational goals are the first to come in contact with the limitations of personal ability, financial resources and opportunities that are encountered in adult life. Boyd (1975) suggested that changes he found in occupational aspirations, in values associated with occupational choices, and in perceptions of goal blockage associated with occupational choice, reflected changes occurring in the larger society during the period under study. Employment opportunities had decreased toward the end of the period with the beginning of the recession of the early 1970s. Women had greater freedom in choice of occupations, and legislation resulted in increased participation of blacks in many occupations. These and other changes in the larger society are mirrored in the changes observed between Boyd's youth (Boyd, Faris, and Shoffer, 1984) in 1967 and 1972.

The Influence of Aspirations, SES, Gender, and Race upon Attainment

In a seven-year restudy of 432 males, Haller (1966) concluded that the levels of occupational attainment in adult life are substantially influenced by levels of occupational aspirations in youth. Kuvlesky and Bealer (1967), on the other hand, stated that their study did not provide strong support for the hypothesis that occupational aspirations are a good predictor of occupational attainment. They reported data from a sample of 1,001 high school sophomore males interviewed in 1947 regarding their occupational attainment. Work by Ramsoy (1953) and Coleman (1976) has suggested that structural factors such as family background and socioeconomic status are more of an influence on attainment than are aspirations. Yoesting et. al. (1968) examined a sample of 143 males and females from eight rural high schools in Iowa who were surveyed as seniors in 1948, again in 1956, and again in 1967. Their data suggest significant relationships between educational aspirations and attainment. No significant relationships were found between occupational aspirations of the youth and their residential background, socioeconomic background, father's education, father's 1948 occupation, and the frequency of discussion of future plans with parents. Significant relationships were found between the occupations attained by the young adults and their socioeconomic background, occupational aspirations, educational aspirations and attainment, father's and mother's education and their own migration. Compared to females, a greater proportion of males attained the occupation they had aspired to as seniors in high school. However, a greater proportion of females attained additional education beyond high school. As high school seniors, educational aspirations were the same for males and females. Youth with higher socioeconomic status were more likely to aspire to and attain post-secondary education, as were those whose parents had higher educational attainments. A study by Dunkelberger and Sink (1975) examined patterns of attainment for different categories of young adults. Although some relatively small differences appeared by sex, race, and socioeconomic status, their data revealed that the basic patterns of attainment were quite similar. Their study also showed that educational aspirations remained high even when educational attainment was low.

In a three-wave longitudinal study of white, non-metropolitan youth in Alabama, Georgia, and Texas in 1966, 1968 and 1972, Thomas, et al. (1976), reported that the major direct influences in educational attainment were level of educational and occupational aspirations. Cosby, et. al, (1975), examined the relationship between adult attitudes and adult attainment. Because researchers had reported that adolescent aspirations have a substantial effect upon later attainment and yet these same aspirations are often much higher than actual attainment. Cosby sought to determine what happened to these aspirations in the adult period in light of realized, lower attainment. It was found that educational and occupational aspirations remained high in adults, despite low status attainment levels.

Studies in the 1950s and early 1960s tended to show lower aspirations of youth in economically deprived and minority groups, but more recent studies have often shown all groups to have similarly high aspiration levels. Racial differences in the educational aspirations of rural youth were examined by Kuvlesky and Ohlendorf (1967). In a study of selected low-income counties in Texas, black boys and girls had higher educational aspirations and expectations than white boys and girls. Studies by Bales (1979), Coleman, et. al. (1966), and DeBord, et. al. (1977), showed the educational aspirations of blacks to be higher than whites. Lyson and Stover (1982) studied a sample of South Carolina youth as sophomores in 1967 and as seniors in 1969. As sophomores, more black boys expected to obtain a college degree than white boys, white girls, or black girls. As seniors, white boys surpassed the other three groups in expectations, Thomas and Cosby (1975) reported that in their study of 6,000 deep south high school students, blacks had lower occupational aspirations and expectations and equivalent educational aspirations and expectations when compared to white students. Aspirations were higher than expectations and both exceeded attainment for all groups. Both black and white students were optimistic about their future relative to their present life situation, but blacks were more likely to perceive factors hindering the attainment of their goals. On the other hand, a later study by Cosby (1978) did not find any significant differences between races. All groups endorsed traditional success themes of higher educational and occupational attainment, Chu and Culbertson (1982) studies the effects of socioeconomic factors on a sample of 73 youth from three isolated rural Alaska towns. Significant differences in educational expectations were found between the white and Alaskan native youth, with the whites having higher educational expectations. Despite the difference in expectations, the native youth's educational aspirations were comparable to whites, supporting Merton's (1957) contention that educational goals tend to be universal and cut across cultural differences.

In Cosby's (1978) study, sex was a substantially more important social origin variable in the context of occupational preference than either race or socioeconomic status. Girls perceived their occupational choices to be more restricted, but the selection of housewife was more likely to be expressed as an expectation than an aspiration. Although early marital plans were found to depress the educational attainment levels of both males and females, the negative effects were considerably greater for girls. Coleman (1976) also found the major difference between boys and girls to be that girls tend to name only a few occupations while boys varied much more widely in their occupational aspirations. Lyson and Stover (1982) found that as sophomores in 1967, black girls had higher educational aspirations that white girls and boys, but lower than black boys. By 1969, both black and white boys surpassed black and white girls in expectations, In 1979, the percentage of those completing a college degree was highest for white boys, then white girls, black boys, and black girls respectively. Chu and Culbertson (1982) did not find significant sex differences in their Alaskan sample. In their study of sex differences in the educational and occupational aspirations of rural youth, Dunne, et. al. (1981) examined a sample of 1787 tenth, eleventh, and twelfth graders in 26 rural high schools in five regions: Northern New England, Nebraska, New Mexico, Oregon, and Tennessee. The young women in their sample showed significantly higher educational aspirations, the same or higher occupational aspirations, and equal ranges of job choices. Their study questions the applicability of male-based status attainment theories and the validity of instruments used in previous studies when considering aspirations of female youth.

Effects of Urbanness and Ruralness on Aspirations

Size of community or residence has been considered to be a variable related to educational and occupational aspirations in many studies, and once again there are conflicting findings. Studies in the 1950s and 1960s generally reported that rural youth had lower aspirations than others, and this was seen as a major factor in low attainment. According to Coleman (1976) however, studies in the late 1960s and 1970s showed rather small differences, or none at all between the stated aspirations of rural and other youth, especially during the high school years. Data obtained by Sewall (1963), in a Wisconsin research project, supported the earlier studies that educational planning and aspirations of rural youth are generally lower than those of urban youth. Studies by Slocum (1956), Middleton and Grigg (1959), Cowhig, et. al. (1960), Burchinal (1961), and Ramsoy (1961) had shown this to be the case. In a study by Harris, et. al. (1975), in Australia, aspirations of country adults were lower than those of their urban counterparts. As inhabitants in isolated communities experienced better education, improved communications and greater mobility, their aspirations were raised not only for themselves and their children, but also for the whole community in which they lived.

In a study of rural/urban difference in educational aspirations of 6,000 Minnesota youth, Nelson (1971) found that rural students register academic aptitude scores similar to those of urban students and they are as strongly encouraged to attend college as urban students. Rural students are as likely to enjoy school as urban students and they do not reject college attendance because of the scarcity of family financial support. What emerges from this study is the importance of social class in understanding community effects. Class differences in rural and urban areas are pronounced in Minnesota. When social class as a variable is controlled, rural/urban differences are reduced. However, the rural community structure appears to depress college aspirations below the level of comparable students from more urbanized areas. Data from a sample of 52,639 Minnesota high school juniors indicated to Nelson (1973) that although attendance at small rural schools appears to lower values on one variable (rural/urban residence) related to aspirations, it simultaneously increased values on a second related variable (participation in extracurricular activities). He suggested that reporting simple community size differences in determining aspirations obscures complex and confounding variables affecting the formation of aspirations.

Cosby (1978), however, found that the rural youth he studied had high educational and occupational aspirations, countering the contention that lower achievement among rural youth results from lack of aspiration or ambition. Rural youth, even the more disadvantaged participate psychologically in the "American Success Dream" if not in terms of actual behavior or attainment, according to Cosby. His results concurred with those of Slocum (1956) studying 30 rural high schools in the State of Washington during the 1964-65 school year who found that 75% of the boys and 65% of the girls expected to go to college, indicating that, in at least one section of the country, rural youth had high educational expectations. Coleman (1976) found very little rural/urban difference and very high occupational and educational aspirations among all children in his 1969 sample. However, by 1975 his sample showed some tendency for rural children to have lower aspirations, as compared to both urban children in that year and rural children six years earlier. Race and sex differences, however, were still greater than residence differences. O'Neil (1981) examined postsecondary aspirations of 720 high school seniors from five different residential settings (rural farm, rural non-farm, village, small town, and large city) in Ontario, Canada. His results indicated that the differences between groups are minimal as residential location accounted for only a small proportion of the variance in aspiration levels. As a group, in fact, rural non-farm students had the highest overall level of postsecondary education aspiration, followed by small town and city students, than rural farm and village students. Chu and Culbertson (1982) found that the socioeconomic status of the community made a difference in educational expectations, with lower status community residents having lower expectations. No differences were found in the different communities,however, in the level of educational aspirations.

A study completed at the University of Maine by Cobb, McIntire, and Pratt (1985) reported that there is a growing body of evidence that suggest that rural youth have lower levels of academic and vocational aspirations than do their counterparts in suburban and urban areas. Their 1985 analysis of data from 10,416 high school seniors from rural, suburban, and urban areas, matched for socioeconomic variables, showed that rural high school seniors in the United States have lower educational aspirations than their peers in suburban and urban areas, and when they do aspire to postsecondary education, their expectations for the level of educational attainment are lower. More rural students than urban students expected to enter the work force immediately following high school and rural students' aspirations for specific careers or professions were generally at lower levels. In terms of the impact that the expectations of teachers, counselors, and parents have on the aspirations of youth, their data confirmed a relationship between expectations of significant others and the resulting aspirations. Rural parents, teachers and counselors evidently are perceived by students to hold career and educational aspirations for youth that are lower than those held by suburban and urban adults.

Aspirations of High School Youth in Rural Maine

The 1987 Employability and Work/Family Integration Survey collected occupational and educational aspiration data on the 754 sophomores studies in eight Maine high schools. The other reports that comprise this monograph offer tables and discussions of many of the findings. Several interesting findings have emerged from these authors' review of the data upon which we wish to make comment. First, it is a positive sign that there is a high degree of congruence between the students' program of study in high school and their expressed plans immediately following high school. For example, the necessity of enrolling in a college-oriented curriculum if one plans to go to college upon graduation clearly is recognized by these sophomores. Secondly, it is interesting to note that the percentage of Maine students participating in this survey who are planning to enter military service immediately upon graduation is twice the national average. This may be attributable to a perceived lack of other options or opportunities available to them in their communities or statewide. Third, sex-role stereotyping influences appear to be very much in evidence among this population. By wide margins, more females than males in this study preferred Holland work environments described as Social, Artistic, and Conventional, while the males preferred Realistic and Investigative by wide margins over the females. Fourth, among those students who reported they know, over half of the students from rural communities in Maine do not see themselves able to achieve their career plans after graduation from high school or college in or near their hometowns. Most report that they will likely have to move elsewhere to find the career to which they aspire. Again, among those who ventured an opinion, over one-third believed they would have to leave the State of Maine altogether to achieve their career plans. Most report that they would not compromise their career plans to stay in or near their hometown. And finally, with respect to projected family plans, these students view themselves as being partners in less traditional and more egalitarian families.

How Influential Can Significant Others Be?

The influence of significant others on the formation of aspirations has been the focus of many studies. Parents, peers, teachers and counselors have been noted as important to setting youths' aspirations and expectations in studies by Sewall and Shah (1964), Bordua (1960), Haller and Woelfel (1972), and Mueller (1979). Although he did not consider teachers and counselors in his study, O'Neil (1981) found that parents and peers significantly affected levels of aspiration. Yang (1981), in his study of a national sample of 1714 rural high school seniors in 1972, found that grades in high school, parents' influence and peers' influence were significantly related to college aspiration and actual college attendance. Teachers' or counselors' encouragement to obtain higher education affected rural youths' aspiration but not actual college attendance. Mother's expectation was the most powerful influence on rural youths' college decision and attendance. Family income and number of siblings did not relate to aspirations or attendance after controlling for other characteristics. Coleman (1976) reported that his data indicated parents were the predominant influence on young children's aspirations, with others in this order: siblings, other relatives, other children, other adults, teachers, and ministers.

Other Variables

Deosaran (1975) reported that a review of the Canadian literature shows that both the level of postsecondary educational aspiration and the level of expectation are related to the student's social class, with the latter more strongly related. In all groups, aspirations are higher than expectations. Not only do a smaller proportion of lower class students aspire to attend universities, an even smaller proportion actually do attend. Being both poor and female depressed the likelihood even further. Language, ethnicity, location of residence, ability, family size, birth order, information access, type of high school program, personality traits and the role of significant others were all related to postsecondary educational aspirations. A study by Picou and Carter (1974), that examined a sample of 1241 white, male, high school seniors in Louisiana, found that peer modeling had the strongest influence in aspirations and that the impact of peers was greater for rural youth than urban youth. Sewall (1963) showed that occupational choice was related to socioeconomic status, academic attainment of parents, school and community attitudes and intelligence. These variables interacted to such an extent that no single one could, by itself, provide an adequate explanation for the formation of aspirations.

Implications of the Research

The conflicting findings in the research described above clearly indicates the need for careful scrutiny of studies before making generalizations with regard to the antecedents of educational and occupational aspirations of youth. Additionally, the need for more current research is obvious. Moreover, the studies also raise philosophical issues deserving of consideration. If the aspirations of all youth are high, should we be pleased that they are aiming so high, based on the assumption that high aspirations will create the strong motivation that will spur them on to higher attainment? Or should we be concerned about the psychological blows that some will suffer when they encounter reality and find they cannot achieve all of their goals? Although the desire to achieve may provide motivation and drive, it can also result in frustration for those who do not make it (Coleman, 1976). If aspirations are higher than expectations and expectations are higher than attainment, should we be trying to raise aspirations, or expectations, or attainment, or all three? And what are the relationships of these three to opportunity? If opportunities are not there, should we raise hopes or should we, instead, concentrate on removing the structural impediments that exist for some groups and provide expanded educational and occupational opportunities? Or should we do both? Without high aspirations, low attainment is almost a certainty. If rural youth or other subgroups within our society have lower aspirations, are they destined to lower attainment? Or should they be encouraged to raise their aspirations, expectations and, hopefully, attainment?

And finally, is status attainment the ultimate goal of youth or should it be the goal of the occupational choice process? Perhaps happiness, quality of life, lifestyle, and personal fulfillment are more appropriate ultimate goals. If so, more research about these factors and the processes leading to success in these arenas is required. A contributing and satisfying life may be achieved in a variety of ways other than through educational and occupational attainments alone. Educational and occupational aspirations, expectations and attainment would then be examined as means to an end.

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Career Decision Making: Enhancing Life Work Options

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Work

Family

CAREER DECISION MAKING:
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INTRODUCTION

As we look to the future, it is important for education and human resource planners to realize that Maine's most valuable resource for economic development is its people. The way in which Maine citizens are educated and prepared for entry into the work force, as well as the quality and characteristics of the educational institutions is important to the overall delivery of career decision making skills. A variety of complex issues will confront human resource planners in Maine: the quality of curriculum, quality of counseling and guidance services, capacity of institutions to respond, and the need for increased productivity among the business and industrial sector. Many of these needs are very complex and were beyond the scope of this survey, but the results do provide direction for planning as we enter the last ten years of this century.

During the period 1990-2000, Maine's work force must be well educated and highly productive; however, there are major forces at work in the economy that will require changes within the educational system. The implications are profound as we deal with issues of economic development, educational equity, new technologies, women in the labor force, multicultural changes in our society, and population shifts to cite a few. To adequately prepare Maine citizens for participation in the economy of tomorrow, several major objectives must be accomplished:

- 1. Schools must prepare students with the educational knowledge to acquire job seeking and keeping skills.
- 2. Schools must improve the participation, retention, and graduation rate of Maine students at all levels of education.
- 3. Schools must reduce the loss and increase the number of educated people in Maine.

4. Schools must improve the quality of career-guidance at all levels.

The survey conducted by the Maine Occupational Informational Coordinating Committee in Spring, 1987, is both timely and of critical importance in resolving many of the above issues.

Permit me to expand on a few of the realities facing educational and human resource planners as we look to the future. First, the economic realities indicate that a service-oriented economy will dominate the future and require a variety of entry level employees who do not require advanced education at the collegiate level. We also seem to be polarized along two extremes in that there is a significant population of poor and unemployed who are surrounded by wealth and a group of citizens who fare economically well. The largest segment of unemployed were Blacks who have faced increasing frustration in acquiring high-level skills to enter a rapidly changing employment market. Many semi-skilled and unskilled workers in the mass production industries that dominated the landscape prior to 1960 have become victims of technologically caused unemployment. As a result, our government has responded with anti-poverty experiments such as Headstart, Neighborhood Youth Corps, Job Corp, and Job Training Partnership Act. However, it is complex and bewildering to many that we now report very low unemployment statistics and at the same time must deal with a large number of citizens who are frustrated by their unemployment and underemployment. Also, as professional jobs decrease due to retrenchment and business/industry realignment, many people who are professionally trained are now forced to take less desirable jobs, work part-time or work at lower wages. This impacts those below them in the occupational structure. We must deal with the aspiration level of many people who felt that success would be guaranteed if they completed high school and/or college. As a result of the above contradictions, society has called for increased employment counseling and improved career guidance in our school systems.

We also have a variety of other problems related to an increasing cohort of elderly citizens who wish to participate fully, a declining birth rate that has lead to population shifts, an increasing number of women in the work force who wish equal status, equal pay, and equal treatment. Family problems have increased in the United States, and it is now estimated that about one third of children in schools are from single-parent homes. We face increasing teenage alcoholism, and drug abuse; drop-out figures for the United States indicate every state having problems retaining youth in school. In fact, U.S. News and World Report indicated that drop-out rates fluctuate from 45% in Louisiana to a low 9% in Minnesota (U.S. News and World Report, 1987). We also face increasing concerns for health and safety in our cities, the increasing new technology and its related problems for dealing with displaced workers, and some loss of faith in government agencies to rectify these problems. In short, the societal problems of the 1960's and 1970's have accentuated the need for skilled professionals who can assist in career planning within the public school system. It is no longer feasible for counselors to work in isolation within each rural or city school system; now they must interface on a daily basis with professionals working in employment counseling, human service agencies, drug and alcohol treatment centers, halfway houses and literally enter the world of youth who are being serviced by a variety of individuals.

As we attempt to visualize the future, it is difficult to predict with certainty the physical, social, and economic behaviors that will occur in the year 2000-plus. Some demographers have predicted that the world's population will outrace its food supply and that by the time the problem is recognized, it may be insolvable (Shertzer and Stone, 1976).

As we attempt to summarize the variety of reports that have focused on the above issues, some sense of direction seems to emerge. It is important that we consider our role in a global community in the future, redefining full employment and economic stability, searching for an equitable society, maintaining a healthy environment, and seeking to educate our population to continue developing a better world. Education in the 1990's must continue to provide and promote mathematics, science, written and computer literacy, and aesthetic and cultural needs as we educate our youth. Solutions to a variety of problems that exist are not the responsibility of the school in isolation, but will require a multiteam and agency approach. We cannot continue to conceptualize education as short term and that people will graduate from high school or college to enter an occupation with few attendant shifts over their career lifetime. Recent figures indicate that 50% of the 12 million students in United States colleges were adults, up from 40% in 1979. This indicates that our career guidance programs will need to be redirected to respond to the needs and interests of youth, middle aged, and older adults as we plan for the future.

Another critical variable that will impact the quality and substance of career guidance programs in Maine will be both population shifts and our move toward a multicultural society. Career counselors will need to develop sensitivity to ethnic differences and the need for integrating this awareness within counseling programs. The recent publication, Cultural Literacy (1987), has strongly suggested that insensitivity to the shifts in our Hispanic, Black and Asian populations cannot be neglected as we plan programs in both rural and urban states. As a multicultural society, the mobility of people will increase interaction with various segments and non-hispanic counselors, for example, will need to be conversant with the language and culture of this cohort. It is certainly true that a multicultural society must recognize the values of ethnic diversity and plan programs that enable people to work together and understand the values of each group.

With the above in mind, it is important to reassert the importance of career education in the schools and restimulate interest in this concept which held so much promise for revitalizing the public school curriculum in the 1970's. It appears that we still emphasize academics without blending the need for reality of achievement with career planning. Far too often career counseling lacks goals and a planned approach to helping our youth prepare for the future. Career or academic program choice are often viewed as accidental and the figures generated by the recent Maine Educational Assessment Survey suggest that far too many young people are randomly choosing the college curriculum as their focus when the realities of the job market at their fingertips does not support this (Maine Educational Assessment, 1987). These results indicate that many youth plan to attend college after graduation and at the same time indicate they plan to live in Maine which may not be consistent with the reality of the occupational opportunity market. The MOICC survey generated data which does provide cause for concern as we look to improving the curriculum available to Maine youth. From my perspective, Maine students who drop out of school should not accept the blame and analysis of the MEA data indicates that teachers and guidance counselors appear to have had very little influence on their career choice. One wonders if we have had any influence at all in their career planning.

CAREER DECISION MAKING

The intent of the Career Decision Making competency as defined by MOICC and used as part of the 1987 survey is oriented to assessing Self Awareness, Career Awareness, Labor Market Information, and Career Choice. A brief comment is appropriate on the role of career decision making as an important ingredient in successful job seeking. Recently, a variety of researchers have theorized about decision making theory and the relationship to occupational choice through the use of decision models. Herr, (et al 1970, 1979) suggested that these approaches assume that an individual chooses a career or occupational goal which will maximize gain and minimize loss. Herr maintains that implicit in this approach is the expectation that the individual can be assisted to predict the outcomes of each career alternative and the possibility of success. The individual then chooses a career goal which promises the greatest gain for personal investment and at the same time permits some options.

At the elementary school level, a career education program using a decision model approach might employ activities that teach the decision-making process. Opportunities for self-awareness and opportunities to gain accurate information about the world of work are vital components of the decision-making theories.

The following concepts are significant to this approach:

- 1. Choice occurs under conditions of uncertainty or risk (Brayfield and Crites, 1964).
- 2. A choice among possible courses of action can be conceptualized as motivated to two interrelated sets of factors: the individual's valuation of different alternatives and his appraisal of his chances of being able to realize each of the alternatives (Blau *et al.*, 1956).
- 3. The process of making a decision between uncertain outcomes requires reconciliation of several general factors: the relative valuing of the outcomes, the cost of attaining the outcomes, and the probability that each outcome may occur (Davidson et al., 1957).
- 4. Decision-making includes the identifying and defining of one's values; what they are and what they are not, where they appear and where they do not (Katz, 1966, Herr and Cramer, 1979).

SOCIOLOGICAL THEORY - Basically, this approach states that sociological factors--such as social class membership, home influences, the school, the community, pressure groups, and role perception--influence career development. These factors influence career choice by determining the employment opportunities available to an individual and which of those opportunities will be considered and by identifying the social needs that particular occupations will satisfy. According to Peterson (1973), elementary school career education programs that incorporate sociological theories of career development may include some of the following elements: (1) a program of parent involvement and parent education, (2) activities designed to encourage students to examine their values in relation to values of other pressure groups, (3) group activities which enable the student to identify his role perception (e.g., leader, follower, enabler, or isolate), (4) activities taking full advantage of the experiential background of the student (ethnic, cultural, etc.), and (5) examination of opportunities in the community.

PERSONALITY APPROACHES - This approach to understanding career development suggests individuals have unique needs which direct them to occupations or environments which satisfy these needs. The motivating factors may be conscious or unconscious, and are thought of as being goal-directed. Psychoanalytical approaches have worked as a method of satisfying basic impulses and providing some outlet for unconscious wishes. This theory is limited in that it does not take into consideration those external influences that individuals experience over their life and career choice is often regarded as less important than personality development. A more modern approach is to stress the developmental task or concepts of vocational maturity and tie them to specific counseling programs delivered through schools and human service agencies.

Holland (1973) assumes that a person expresses personality needs through the choice of an occupation. He maintains that we can classify individuals into a limited number of personality types and that work situations or work environments can similarly be classified into a few categories. Holland's theory suggests that a person's growth and development are influenced by both hereditary and environmental factors. Each person is a product of the culture and peers, parents, and other adults play a major role in the ultimate career choice of each individual. Out of these experiences and interactions, a habitual or preferred method for dealing with environmental tasks is developed. Holland divides the occupational world into six model environments, which attract people with matching personality typologies. The personality orientations correspond to the occupational environments. For example, a realistic person would prefer to deal with activities and learning tasks that emphasize the use of psychomotor skills. The manipulation of objects, the playing of games, and other motor activities would characterize a learning situation for this student.

A career education program using Holland's theory would encourage activities promoting self-understanding and personal adjustment. In addition, because of the significance of occupational stereotypes in this theory, it would be necessary that students acquire accurate information about the world of work early in their school career.

DEVELOPMENTAL THEORY OF CAREER DEVELOPMENT - The position espoused by Super, Havighurst, and other investigators states that career development begins early in life and proceeds along a continuum of experiences. Occupational choice is a developmental process that involves a series of tasks divided over a series of life stages. Individuals pass through similar life stages and a career program must provide experiences compatible with these periods. According to Havighurst (1964), for example, a developmental task for children ranging in ages from 5-10 is to identify with a worker and achieve success in the work tasks appropriate for this age group.

The attainment of success in the tasks assigned to elementary school children is essential for development of later career success. A child who experiences success activities will be stronger psychologically and able to absorb the stresses of adult participation in our culture. Learning to make compromises between self-concept and reality is essential to participation in the real life situations of work and leisure.

Both Super and Havighurst suggest that personality development and career development are interdependent variables in the maturation process. It is important, therefore, that career education programs integrate the concepts of appropriate career development theory. Provision for individual differences must also be accounted for in the career education program.

Ginzberg (1951) et al., have proposed that occupational choice is not a single decision, but a developmental process which takes place over a minimum of six or seven years and often ten or more years. The process is largely irreversible which implies: (1) that decisions cannot be repeated and (2) that later decisions are limited by previous decisions. Ginzberg proposes three stages of career development: fantasy choice, tentative choice, and realistic choice. These periods correspond roughly to the elementary school years, the junior and early high school years, and the late high school years and after.

Super (1963, 1972, 1980), in expounding one of the more interesting theories of career development, suggests that the process of vocational development is essentially that of developing and implementing a self-concept. According to Super, every person is suited to do many different jobs, and occupational choice depends on many factors--socioeconomic background, abilities, and available opportunities. Through a process of compromise between individual and social factors, the individual chooses a career that will enable him to be the kind of person that he views himself to be. An individual may change an occupation if it is discovered that it is not congruent with self-concept or if self-concept changes. Super holds that students must be provided with exploratory activities that help individuals differentiate their unique needs in the career area. Satisfactory career adjustment provides the foundation for self-expression, status, and self-esteem. In school, teachers could devote considerable energy to providing experiences that help children clarify their self- concept. Steps to self-knowledge might include a realistic appraisal of interests, abilities, values, and personality traits. Each student should be given opportunities in school to clarify reasons for behavior, feelings, and attitudes.

In sum, school counselors and teachers who use career decision-making theories can help students clarify career plans as part of the school experience. Career decision-making theories provide the theoretical structure for developing sound programs of career guidance. The use of career planning models can help students appraise their career interests and develop plans for a changing occupational world. School-based programs will need constant redefinition as we approach the year 2000.

FINDINGS

The 1987 Work Family Integration Survey collected information on personal characteristics and perceptions, and self-descriptions of pre-employment competence among sophomore students from eight Maine high schools. This summary provides an overview of the results of the survey pertaining to the Career Decision Making competencies. Many findings not directly relating to this competency area do not appear in this summary. Interested readers should examine the other sections of this report to understand the full findings of this second Employability and Work Family Integration Survey.

The data related to the career decision making competency area focuses on self assessment, career awareness, labor market information, and career choice. The survey respondents are asked to respond to 19 items that focus on sexual bias, personal values, identifying skills and abilities, describing past work experiences, describing obstacles to employment, identifying occupational clusters, relating school subjects to work-related skills and knowledge, describing various types of work and their impact on lifestyle, describing functions of various jobs of interest to them, understanding the effects of an aging society on the work force, and other data related to labor market information and career choice.

In the labor market items, the respondents are asked to rate their valuing of competencies pertaining to the current local labor market, relate specific career choice to regional labor markets, and identify growth and demand occupations. In the career choice items, the respondents are asked to plan a strategy for achieving a career goal, identify realistic choices, identify abilities and relate them to an occupation, specify appropriate career goals and demonstrate understanding of the economic consequences of career decisions in regard to education, training, and employment. All items require the respondent to address critical areas related to career decision making and meaningful planning.

In relation to the career decision making competency, it does appear that no difference exists between females or males in terms of a medium value reported response to self assessment, career awareness, labor market information and career choice. In general, between 200 and 300 respondents, both male and female, ranked the competency value as medium.

In looking at the self-assessment phase of the career decision making competency by program, we again note that the college-bound give it a medium value rating. The career awareness phase was also given a medium value rating by the college-bound and similar ratings occurred in the labor market information and career choice phases. It is interesting to note that students in the general, vocational, business, cooperative education and undefined did not view the competency of high value to them. The ratings are slightly higher in the medium value category. The implication is that for students in the non-college-bound programs, we are not doing an adequate job of informing them of the value of these four competency areas in relation to career decision making.

Students who understand the self-assessment competency indicated that knowledge in this area would be of value to them. Self-assessment is defined as knowledge of self as related to the world of work. One's ability to assess self-knowledge is directly tied to the learning process and must be continually re-examined through the course of one's public school career. It requires the use of divergent thinking abilities that permit one to appraise general interest, abilities, skills and tie these values to a specific career area where they can be utilized. Students who are able to successfully demonstrate knowledge of this competency are able to identify their values, identify skills and aptitudes, describe their employment history and potential obstacles to future employment.

In the career awareness competency, it is suggested that youth will need exposure to a variety of occupations and the ability to understand the interrelatedness of employment opportunities in the United States. Students will need to become familiar with career clusters and the occupational organization of our society. When a student understands the world of work and how careers fit into that world, they can begin to narrow their choices down to specific occupations. The career awareness competency represents a continuing sense of the changes in the work world and what is needed for success and adaptability. Students should be able to identify career clusters, describe specific jobs of interest and the daily job functions of those occupations. The data indicates that this competency was rated of high value on items 9, 11, 21, 42, 48 and 56. It appears that about 75% of the survey respondents are familiar with this concept and rated it very important to them.

The labor market information competency requires the respondent to understand employment trends and relate them to local and regional labor market needs. Respondents need some idea of specific jobs in their region and a general profile of the local labor market. If the respondent is not able to fulfill their career choice and wishes to reside in a particular area, such as the state of Maine, he/she must then consider related occupations or the possibility of relocating to a more favorable labor market. In this competency, the respondents are required to indicate a personal valuing of competencies that relate to the current local labor market; identifying growth and demand occupations, and discussing the characteristics of these occupations as they fit within specific career choices. The majority of the respondents agree with the value of this competence and rated it of medium to high importance to them. In fact, the ratings on items 16, 25 and 52 indicate somewhat of a split between the college-bound and those in other school programs on the value of this particular competence.

The career choice competence places the responsibility for choosing a career on the student, but it must reflect their abilities and the reality of the labor market. Respondents should understand that one will be required to make a variety of choices over their lifetime and this will require a knowledge of training opportunities and, often times, the necessity of relocation. Careers do change, and the technology that awaits us in the future will force both changes in our economy and contradictions in the job market that will lead to insecurity for some. Students should be flexible and able to demonstrate that they can select an appropriate career goal in relation to their abilities and formulate a plan for achieving that career. The respondent data for career choice items 10, 39, 47, 55, and 63 indicate 80% rated all five items as very important to them (both genders).

In examining additional data for the career decision making competency, we note that students do display divergent views on the importance of some items, but are consistently high in supporting other areas as noted above. The survey respondents consistently indicated that part-time work does not interfere with school (83%) and that it does help in developing future job success (61%). In addition, we note that many of the respondents feel that work outside of school has influenced their career plans, but not in a significant direction. For example, 37% indicated that yes, it had some influence, but 63% said no, it was not important to them.

It is also worth noting that 22% (N = 161) do not spend much time in evaluating their skills. On the other hand, for the remainder of the survey respondents, 47% (N = 349) spend from ten to twenty-plus hours in evaluating their skills and thinking about educational and career plans.

If we look at the area of career guidance, the data indicate that for most of the survey respondents, 36% (N = 180) found their jobs through direct contact and 21% (N = 104) found their jobs through the family. Again, the data is very significant in that these respondents did not find their part time jobs through the school (2%). This finding should be of concern to us and provide cause for immediate evaluation of what does occur in career guidance programs within the Maine public school system.

Other elements of the survey that relate to career decision making suggest that many of these high school sophomores have a well-defined educational plan that indicates 22% will seek a bachelor's degree. For the remainder, their educational plans are spread across securing the high school diploma (33%), attending a two-year business college (9%), attending a two/four-year vocational/technical institute (15%), and the remainder seeking advanced degrees beyond the baccalaureate level. Survey respondents frequently cited a strong interest in professional-type careers (56%), white collar work (23%), and blue collar area (22%). In analyzing the responses, we find that 46% of the sophomores plan to attend post-secondary education in Maine. This rate of attendance would seem adequate, but may be low in terms of post-secondary attendance and participation by public school students.

The survey results are extremely consistent with prior studies conducted on sophomores and their career planning and career decision making skills. We find some element of unrealistic behavior when we examine the data for planned post-secondary attendance where 47% indicate a two- to four-year college. This figure is high, but may indicate that for some sophomores, the crystalization of their career plan has not occurred, and it is much easier to cite attendance at a post-secondary institution than make some other firm decision regarding job entry after high school. The data does indicate that 13% will enter the armed forces, but there is a significant 16% that do not know what their career plans are after high school at this time. Again, it is difficult to tell from the survey data whether the average student who makes up 50% of the sample is citing this type of plan in relation to the other 50% who are A and B students, as reported in the data. It is interesting that 45% of these sophomores do plan to live in Maine at age 30, and plans should be made to assimilate them into the labor market as smoothly as possible. The data of most concern, which needs further study, is the high percentage (48%) who are in the college track and the comparison of this type of high school training with the realities of the Maine labor market. As has been stated earlier in this report, we anticipate a service-oriented job market in the future and the attainment of a college degree may not be appropriate for youth who plan to live in a rural area where the opportunities may be more limited. [Note: All percentages have been rounded to the nearest whole.]

RECOMMENDATIONS FOR CAREER AND EDUCATIONAL PRACTICE

After carefully reviewing the data generated by the career decision making competency and reflecting on the trends indicated, it appears that the following recommendations should be considered by educational, human service agencies and labor utilization planners:

- 1. Continue to develop high school programs for all students that will focus on the development of career decision making skills.
- 2. Develop plans for improving the training of school counselors in the area of career decision making.
- 3. Develop programs to expand career awareness programs throughout the school system. The data indicates the college-bound were in the majority in rating this competency and saw it as of high value in relation to the other reporting groups.
- 4. Develop plans to train educators in the use of labor market information through in-service teacher training programs. A series of incentives for in-service programs to assess needs and strategies for developing skills among high school students in career decision making would be appropriate.
- 5. In preparing a program that would focus on career choice, it is important that this receive greater emphasis in the public

school curriculum in Maine as it was rated of high value by students in the college track.

- 6. Develop specific career awareness programs for students in business, cooperative education, vocational education, college, and the general program, with integrative concluding material.
- 7. Develop a program to train Maine educators in the realities of the local and regional job market. Technology shifts will require people trained in health services, information services, and telecommunications, and this information must be communicated to educators.
- 8. Develop a plan for revising a high-school curriculum to include career decision making as a formal curriculum offering. It may be necessary to lengthen the school day to fully implement this recommendation.
- 9. Develop a plan for giving credit for part-time work experience for those students who participate in labor market activities. Guidance programs should develop initiatives in using this type of information in presenting a career decision making program.
- 10. Develop a funding plan for publicizing career options and training opportunities in the state of Maine.
- 11. Establish a task force to review school counselor certification requirements in relation to the changing career world in which counselors must be trained.
- 12. Review counselor training programs at both the University of Maine and at the University of Southern Maine to determine if they are adequately servicing the career development component in training counselors for work in public schools.
- 13. Develop a plan to increase dissemination efforts for informing counselors, school psychologists, and teachers of the career decision making competency and its use in the school.
- 14. Develop a seminar series for delivery at parental group meetings throughout the state that would focus on career decision making and career options that are available.
- 15. Establish a task force of school counselors and teachers to develop career guidance strategies for working with tenth to twelfth graders. The data indicates that only 4% saw the counselor as having much influence on their career planning.
- 16. Develop a television series to publicize Maine career opportunities and have this program based on solid labor market research.
- 17. Establish a funding pool for mini projects that would address marketing, recruiting, and career needs of Maine youth and what information is needed to assist them in the career decision process.
- 18. Develop a plan for expanding partnerships between schools and the business/industry community to enhance the quality of career awareness in Maine.
- 19. Develop a research project to identify the link between highly motivated youth in vocational classes and the acquisition of academic skills.
- 20. Develop a Maine rural job creation policy with incentives for school districts who would identify local needs and tie school programs to them.
- 21. Develop a process and plan to use telecommunications for reaching rural schools who are often isolated and disadvantaged in terms of having accurate labor market information.
- 22. Develop a plan for increasing the Maine high school graduation rate. National data indicate that only 78.6% were completing high school in 1985 (U.S. Department of Education), with a loss of about 21% to marginal jobs.
- 23. Develop a plan to examine the basic structure of schools, e.g. a 12-month school year with variable graduation

points; this would require fundamental changes in existing school policy.

- 24. Develop a seminar series for teachers and counselors that focuses on attitudes toward the poor and disadvantaged who live in rural areas and need to be apprised of labor market information.

The above recommendations, while not all inclusive for the data presented, should provide a stimulus for both research and discussion.

SUMMARY

After carefully assessing the career decision making survey responses and putting them into context related to the social-economic environment of Maine, several concluding comments are appropriate. As we deal with rural isolation and, in some cases, economic disadvantage, it is important to have a well-defined career guidance program in all Maine public schools. If we are to bring equity in terms of career choice and planning, then it is critical that well-defined career guidance programs start early in the elementary grades and provide opportunity for self-awareness, career-awareness, and decision-making development. It is noted that the Los Angeles public schools recently voted to be open year round and one rationale focused on reaching students who need remedial assistance to strengthen their educational development. It was suggested that it does not make sound educational sense to keep children out of a learning environment for three months when there is much to be done. It may be possible to build on policy decisions such as this to develop some form of modified year-round plan so that students could participate in career decision making opportunities during summer months. The data indicate that students view this activity as quite helpful and are quite certain of its value as they develop plans.

In short, the career decision-making competency does provide a chance when formally applied in a school for students to develop career awareness, career choice, self-assessment and labor market information skills. The results are intriguing in their promise for additional development of career guidance services in Maine.

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Career Interest Assessment in the Maine Employability and Work Family Integration Survey

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Work

Family

CAREER INTEREST ASSESSMENT IN THE MAINE EMPLOYABILITY AND WORK FAMILY INTEGRATION SURVEY

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INTRODUCTION

It is estimated that three and a half million persons complete an interest inventory each year in the United States. Many are students in Grades 7-12. Zytowski (1973) has challenged the usefulness of such widespread administrations of these instruments maintaining that they are of value to only a limited number of persons, namely, those who have access to a variety of occupations and those who seek to plan ahead to maximize their occupational satisfaction. The Maine Employability and Work/Family Integration Survey is especially relevant to Zytowski's proposition since it involves a largely rural population facing a limited number of occupational options if they are to remain in their rural surroundings, and a significant percentage of students in this study intend to do so.

The present paper will concern itself in particular with the results obtained for the *Career Decision-Making System)* (CDM) (Harrington & O'Shea, 1982), the self- scored form which was completed by 607 of the 754 subjects in the study. The CDM is an inventory that measures the six occupational interest areas which were first identified by Guilford (1954) and which Holland (1970) later expanded into an occupational classification system and theory of career development. The six CDM interest areas and corresponding work environments are: (1) Crafts; (2) Scientific; (3) The Arts; (4) Social; (5) Business; and (6) Clerical. Prior to completing the CDM, students had been asked to rank order these six work environments from most appealing to least appealing. These data provided the basis for making two major comparisons: expressed vs. measured career interests and student career aspirations vs. the realities of the current Maine job market and the market projected for 1995.

The research literature concerning expressed or stated career interests and inventoried interests is quite extensive and clearly suggests that the expressed interests of clients should be given careful consideration by counselors. The *Strong Vocational Interest Blank* studies reviewed by Dolliver (1969) indicated that stated interests have predictive validity that equals or surpasses that of inventoried interests. From a review of longitudinal studies, Whitney (1969)concluded that expressed choices predicted future employment about as well as interest inventories. Gade and Solich (1975) reported that the expressed choices of high school seniors were significantly more accurate predictors of graduating college major and of career-entry occupations than *Vocational Preference Inventory* codes. Rose and Elton (1970) found expressed choice to be a viable alternative to measured interests provided the client had formed some idea as to what career to pursue. In a study involving 100 high school students, Harrington and O'Shea (1982) found that 78 of them had at least one of their two expressed cluster choices included in the clusters suggested to them by the CDM.

Further research has shown that when stated and inventoried interests are not in agreement, stated interests are the more predictive (Bartling & Hood, 1981; Borgen & Seling, 1978; Dolliver & Will, 1977; Gottfredson & Holland, 1975; Holland & Lutz, 1968). These studies also found that when stated and inventoried interests agree, predictability is higher than when they do not. On the basis of their research, Slaney and Russell (1981) suggested that groups lower in agreement between stated and inventoried interests were less "career decided" than groups higher in agreement.

The current study gathered an immense body of data. In addition to completing the CDM and stating their first preference among the six work environments, students also indicated their two most preferred occupations and their first choice among the twelve interest areas of the *Guide for Occupational Exploration* (GOE) (1984) interest areas. This paper will center its attention on (1) male-female differences in CDM results and stated work environment choices; (2) the congruency of self- reported preferred Holland work environments and highest CDM scale score; (3) congruency between preferred Holland work environment and first stated specific job preference; (4) congruency between highest CDM scale scores and first stated job preference; (5) congruency between preferred GOE interest area and first stated job preference; and (6) rural career interests vs. metropolitan career interests.

MALE-FEMALE INTERESTS

Table 1 summarizes the CDM results and the preferred work environments for the students in this study. It is clear that the present sample exhibited many of the socialization characteristics that have typically been found in interest inventories that use raw scores (Harrington & O'Shea, 1982; Holland, 1985). A comparison of these data with results (Table 2) from a *Self Directed Search* (SDS) study by Gottfredson & Holland (1975) reveals that the current females were far less socially oriented than the that earlier SDS group. Their interests were spread more broadly with substantially more clerical interests and a stronger attraction to scientific, artistic, and business activities. The males in this study had much greater interest in business, fewer social and scientific preferences, and more artistic, clerical, and crafts interests.

The more balanced interests of the female students in this sample certainly encourage the belief that changes are occurring in female attitudes toward work. However, the crafts area received little consideration from females in either sample. Interpretation of these data must be cautious because the CDM and SDS are quite different instruments and because the CDM had put special emphasis on achieving sex balanced scales. The samples as well were quite different. It is difficult, then, to determine the reasons for the changes.

Males in this study on the CDM showed much weaker social interests and much stronger business interests than in the Gottfredson and Holland (1975) study, perhaps reflective of a 1980's move toward more pragmatic choices and away from the altruistic.

The current data, while encouraging in the case of females, should alert counselors to the need to assist all students in expanding the career options which they are willing to entertain.

Table 1

Preferred Work Environment and Highest CDM Score by Sex

Preferred Work Environment	Male N	%	Female N	%
Crafts	141	47.67	12	3.93
Scientific	48	16.22	23	7.54
The Arts	44	14.86	62	20.33
Social	12	4.05	125	40.98
Business	25	8.45	35	11.48
Clerical	21	7.09	46	15.08
No Choice	5	1.69	2	0.66
TOTAL*	291		303	

Highest CDM Score	Male N	%	Female N	%
Crafts	146	49.32	6	1.97
Scientific	53	17.91	32	10.49
The Arts	20	6.76	54	17.70
Social	7	2.36	99	32.46
Business	52	17.57	26	8.52
Clerical	18	6.08	88	28.85
TOTAL*	296		305	

Table 2

Highest Self-Directed Search Score by Sex

SDS Scale (CDM Title)	Male N	%	Female N	%
Realistic (Crafts)	869	40	14	0.6
Investigative (Scientific)	493	22.7	195	8.0
Artistic (The Arts)	178	8.2	308	12.6
Social (Social)	435	20	1632	66.7
Enterprising (Business)	133	6.1	27	1.1
Conventional (Clerical)	61	2.8	271	11.1
TOTAL	2169		2447	

Table 3

Frequency of Matches for Males and Females Between Preferred Work Environment And Highest CDM Score

Environment - CDM Scale	Males N = 291	Females N = 303
Realistic - Crafts	110	4
Investigative - Scientific	20	12
Artistic - The Arts	13	28
Social - Social	0	68
Enterprising - Business	10	4
Conventional - Clerical	6	32
TOTAL	159	148
Percentage	48.8	54.6

Expressed and measured interests in this study were on average quite congruent although there are discrepancies. For example, male expressed interests in The Arts are much more pronounced than the measured while the reverse is true for Business in that more male students (17.57%) had their highest score in that area as opposed to only 8.45 per cent having it as their stated first choice. Table 3 shows that roughly 50 per cent of both males and females had the same expressed and measured work environments. There is considerable research evidence that the predictive accuracy of expressed choice and measured interests is greatest when they are congruent (Borgen & Seling, 1978). Counselors can relate this information to their clients. In the case of those whose expressed choices and measured interests are not congruent, counselors should examine the overall situation. If it is a question, for example, that a first expressed choice is a person's second measured interest, then there can be greater confidence in the appropriateness of the choice than if it is a less favored measured interest.

Table 4 compares the congruence of first occupational choice with stated work environment preference, measured interests, and preferred Harrington-O'Shea (1984) interest area. Students had been asked to articulate their first and second specific job preferences, for example, accountant, truck driver, or reporter. They had also been requested to choose their preference from the twelve interest areas of the GOE. Table 4 shows that there was about 50 percent agreement of first job choice with both expressed work environment preference and CDM measured work environment. However, there was a much lower agreement between GOE choice and specific occupational choice. An examination of individual choices clearly indicated that students could not accurately distinguish among the GOE work groups. For example, a person selecting zoologist as first specific occupational choice might indicate a preference for the Plants and Animals Work Group rather than the Scientific Work Group, the GOE group which actually contains zoologist. In the same way a person wanting to be an accountant might understandably choose the Business Detail Work Group rather than Leading-Influencing, the GOE Work Group that contains accountant. Counselors, then, who might intend to use the GOE, should spend time with their clients clarifying the definitions of the twelve interest areas. It is evident that students in this sample in fewer than 25% of the cases were able to relate a specific job to its actual GOE interest area. Table 5 looks at the congruence between highest CDM score and expressed work environment preference. It is obvious that the highest degree of congruence existed among persons scoring high on the Crafts scale, with 75 percent of them also making Crafts their first choice of work environment. Conversely, approximately the same percentage of those making Crafts their work environment choice also scored highest on Crafts on the CDM. The area where congruence was lowest was Business. Only 17.5 per cent of persons scoring highest on Business had made Business their first choice of work environment. There seemed to have been considerable confusion among the students in this study with regard to the business field. It was the least preferred among the work environments with only 9.88 per cent selecting it. Yet 13.4 per cent of the sample described themselves as planning on a management job and another 14.1 per cent on a supervisory one. While it is true that there are management and supervisory occupations in other work environments, for example, laboratory supervisor in the Scientific work environment, it would appear that there was some lack of congruence between expressed interest in management and interest in management as measured either by the CDM or by a rank ordering of the six work environments. The low level of measured enterprising interests is not peculiar to the present sample as evidenced by the SDS data in Table 2. It would be advisable for counselors to be alert to students planning on management careers whose interests do not support such a choice. They may well need to explore together the appropriateness of the choice.

A further congruency determination was made by comparing students' first three work environment choices with their three highest CDM scores. Table 6 provides a summary of the results of the comparison. In the great majority of cases

Table 4

Agreement Between Expressed Occupational Choice And GOE Choice, Work Environment Choice, And CDM Highest Score

Paired Comparisons	In Agreement: Male (N = 296) N	%	Female (N = 301) N	%
Occupational Choice versus GOE Choice	58	19.6	81	26.6
Occupational Choice versus Work Environment Choice	157	53.0	146	47.9
Occupational Choice versus Highest CDM Score	162	54.7	156	51.1

NOTE: Six persons did not indicate gender.

(77.76%) at least two of the environments match, and in 123 cases (20.26%) all the environments were the same. Counselors should be aware of the research cited earlier that there is more accurate prediction of future occupation when expressed and measured interests are congruent (Borgen & Seling, 1978). Where the two diverge, counselors should not be discouraged but rather should seize the opportunity to work closely with their clients in probing for clues as to the reasons for the divergence. It is clients with contradictory profiles who are in most need of career counseling. Contradictions will help identify those in need. The CDM is especially useful in this regard since it not only measures interests but also has respondents indicate their expressed interests.

STUDENT PLANNING AND THE MAINE JOB MARKET

Table 7 reports on student selections of GOE Interest Areas. It is interesting to compare these selections with where people work in the state of Maine and where they are projected to work in 1995 (Maine Department of Labor, 1987). For example, 13.3 per cent of students in this survey chose Artistic as their preferred interest area, while another 5.8. per cent selected Physical Performing; thus, almost one in five students chose these two areas. This compares with Maine Department of Labor estimates of a combined less than 1 per cent of persons in the state employed in 1984 in art, writing, music, entertaining, and athletics; very little change is projected through 1995. With almost half the respondents in the sample planning on remaining in Maine, it is clear that many of those looking to an artistic career will have to seek alternate employment. Even those who leave the state will find the artistic field highly competitive with aspiring workers far outnumbering job openings (United States Department of Labor, 1986). Counselors in working with artistically oriented students must clarify for them the distinction between vocation and avocation. Many, of course, will have to satisfy their artistic interests through after-work activities. In such cases, secondary interests assume greater importance and become the focus in developing career plans. With almost one in five students expressing unattainable

Table 5

Agreement Between Most Preferred Work Environment and Highest CDM Score

N = 607

Highest	Most Preferred Work Environment							
CDM Scale	N/C	Crafts	Science	Arts	Social	Business	Clerical	Total
Crafts								
N	6	115 .00	8	13	4	4	4	153
FP	0.99	18.95	1.32	2.14	0.66	0.66	0.66	25.21
RP	3.92	75.16	5.23	8.50	2.61	2.61	2.61	
Scientific								
N	0	17	32	11	14	8	4	86
FP	0.00	2.80	5.27	1.81	2.31	1.32	0.66	14.17
RP	0.00	19.77	37.21	12.79	16.28	9.30	4.65	
The Arts								
N	1	3	6	41	12	7	4	74
FP	0.16	0.49	0.99	6.75	1.98	1.15	0.66	12.19
RP	1.35	4.05	8.11	55.41	16.22	9.46	5.41	
Social								
N	0	5	5	10	69	12	6	107
FP	0.00	0.82	0.82	1.65	11.37	1.98	0.99	17.63
RP	0.00	4.67	4.67	9.35	64.49	11.21	5.61	
Business								
N	0	8	15	20	10	14	13	80
FP	0.00	1.32	2.47	3.29	1.65	2.31	2.14	13.18
RP	0.00	10.00	18.75	25.00	12.50	17.50	16.25	
Clerical								
N	0	6	5	12	31	15	38	107
FP	0.00	0.99	0.82	1.98	5.11	2.47	6.26	17.63
RP	0.00	5.61	4.67	11.21	28.97	14.02	35.51	
TOTAL	7	154	71	107	139	60	69	607
	1.15	25.37	11.70	17.63	22.90	9.88	11.37	100.00

FP = Frequency Percent; RP = Row Percent; N/C = No Choice

Table 6

Student Three Most Preferred Work Environments Compared With Three Highest CDM Scores

Sex		0 Match	1 Same	2 Same	3 Same	3 Same/ In Order	TOTAL
Not Indicated							
	N	0	1	3	1	1	6
	FP	0.00	0.16	0.49	0.16	0.16	0.99
	RP	0.00	16.67	50.00	16.67	16.67	
	CP	0.00	0.81	0.86	1.18	2.63	
Male							
	N	7	75	169	30	15	296
	FP	1.15	12.36	27.84	4.94	2.47	48.76
	RP	2.36	25.34	57.09	10.14	5.07	
	CP	58.33	60.98	48.42	35.29	39.47	
Female							
	N	5	47	177	54	22	305
	FP	0.82	7.74	29.16	8.90	3.62	50.25
	RP	1.64	15.41	58.03	17.70	7.21	
	CP	41.67	38.21	50.72	63.53	57.89	
TOTAL		12	123	349	85	38	607
	RP	1.98	20.20	57.50	14.00	6.26	100.00

FP = Frequency Percent RP = Row Percent CP = Column Percent

goals, the importance of counselor intervention takes on special significance.

Another area of imbalance is the clerical. Whereas 10.1 percent of the sample chose Business Detail as their preferred interest area, 15.8 per cent of Maine workers were classified as clerical in 1984; that percentage is expected to remain virtually unchanged through 1995. The sales area, too, was chosen by a relatively small percentage of students, 3 per cent as opposed to the 5.3 per cent actually employed in it in 1984 and the 5.6 per cent projected for 1995. A much greater discrepancy arose in the factory work area since only 1.2 per cent of the students chose the Industrial Interest Area as compared to the 1995 per cent of Maine wage earners performing such work in 1984 and the 16 per cent projected for 1995. Accommodating constitutes another area of imbalance: 4.9 per cent of students choosing it and 14.2 per cent of workers engaged in it

Table 7

Students' Most Preferred GOE Interest Areas

GOE Interest Area	N	Percent
Accommodating	28	4.9
Artistic	76	13.3
Business Detail	58	10.01
Humanitarian	76	13.3
Industrial	7	1.2
Leading/Influencing	66	11.5
Mechanical	59	10.3
Physical Performing	33	5.8
Plants and Animals	52	9.1
Protective	44	7.7
Scientific	56	9.8
Selling	17	3.0
TOTAL	572	100.00

in 1984 with projections of 16.4 per cent in 1995. Plants and Animals attracted 9.1 per-cent of the students but employed only 3.4 per cent of Maine workers in 1984 with a projected decrease to 2.9 per cent in 1995. The GOE Humanitarian Interest Area includes religious work, social work, counseling, nursing, various therapies, specialized teaching, and child and adult care. It appealed to 13.3 per cent of students; however, only 2 per cent of Maine workers comprised this area in 1984 and little change is expected through 1995. Protective occupations, too, were in imbalance in this study attracting 7.7 per cent of students but employing only 1.4 per cent of workers in the state in 1984 with 1.5 per cent projected for 1995.

The Leading-Influencing Interest Area is very broad and covers mathematics, educational and library services, social research, law, and many business management occupations. These career areas embrace about 15 per cent of Maine workers in 1984 with projections of 15.4 per cent for 1995, yet only 11.5 per cent chose them. The final GOE Interest Area to be examined is Mechanical and includes engineering, transport operation, and various crafts and technologies. The area accounted for about 26 per cent of Maine workers in 1984 and is projected for 26.4 in 1965, yet was chosen by many fewer of the students, only 10.3 per cent.

While it is arguable as to whether or not students fully understood which occupations made up which GOE interest area, the discrepancies between their choices and the existing Maine job market constitute a concern for counselors. It is of course, not the task of counselors to ensure that student make career choices reflecting an existing job market. However, it is important that they take responsibility for helping students understand the job market and where the areas of most intense competition are. Career choice should be based on as much information as possible including job availability. Maine students have access to the *Guidance Information System* with its up-to-date projections for the Maine job market; counselors should encourage them to use it to estimate the climate they can expect to encounter when they complete their education and training.

CONCLUSION

This paper has concerned itself with the interest assessment part of the Maine Employability and Work/Family Integration Survey. The assessment should be helpful to counselors in several ways. First, it shows how the CDM can focus on expressed vs. measured interests as an aid in estimating the appropriateness of client planning. Where there is disagreement, the counselor must work closely with the client in exploring both stated and measured career options. Where measured interests confirm expressed choice, research suggests that the client can have greater confidence in the choice. The study also revealed a rather striking imbalance between student plans and existing employment conditions in Maine. In Zytowski's (1973) view, cited at the beginning of this paper, this imbalance might be a reason for abandoning interest assessment. On the contrary, it seems an added reason for using interest inventories, that is, to highlight problem areas and to identify those students whose plans are leading them to areas of great competition, thus providing counselor and client with another area of focus.In addition, the study should alert counselors to the need to make students more aware of non- traditional occupations, that is, that all occupational areas are open to both males and females. Finally, the study might encourage counselors to follow these students as their careers progress. The rich fund of data gathered to date would make such a follow-up especially valuable.

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Life/Work Management: Autonomy and Problem Solving

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Work

Family

LIFE/WORK MANAGEMENT:
Autonomy and Problem Solving

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INTRODUCTION

This portion of the monograph is a presentation of the concepts and findings regarding the development of competence in addressing life/work management tasks of the high school students under study and student perceptions of the importance of these tasks. In Part I, a comprehensive definition of life/work management and its sub-factors of managing personal responsibility and problem solving/coping is followed by an overview of developmental theories that may offer additional insight into the concepts under review and the high school students who have participated in this project. Part II presents selected findings from the 1987 Employability and Work/Family Integration Survey which was undertaken for the Rural Career Development Group by staff of the Maine Occupational Information Coordinating Committee. A discussion of the findings and listing of recommendations for educators.

PART I

The Competencies

As a topic for research and discussion, "This competency area deals with managing a person's life and solving problems. It presents the skills required to balance a person's private life and work life" (Youth Credentials Work Group, 1985, page I-20). Borrowing from Chickering (1969) and others will enhance the conceptualizations of the Youth Credentials Work Group (YCWG) and assist in greater understanding of the Life/Work Management competency construct.

The nature of work has changed and brought with it a shift in out-of-work life patterns. McDaniels (1984a) cites shorter work weeks, longer vacations, earlier retirements, and expanded leisure options as trends that will be continuing to affect workers. Skill to balance vocation, avocation, and lifestyle is critical to the worker of the future. So interrelated and confounded are these constructs that it falls to each individual to gain knowledge and skill to prevent excessive attention to one construct from having negative effects upon the others,or, according to Greenhaus (1987, p. 7), career management skills.

The illustration in Figure I-1. suggests an ideal configuration of these constructs in an individual's life. Chickering (1969) describes his view of the interrelatedness of one's vocational, avocational and lifestyle interests in a discussion of the psychosocial tasks of developing purpose. Consultation with the glossary of career guidance terms developed by the NVGA (Sears, 1982) offers definitions of vocation and avocation. Brief corruption of the definitions in Table I-1. could take vocation to represent occupational pursuits and avocation to represent activities outside of the workplace. The arena in which a person elects to undertake each of these endeavors is a manifestation of lifestyle.

In considering life/work management, time must be given not only to the interrelatedness of these factors but to the primacy attributed to each by individuals in their career planning. Which factor will provide a "rudder to the ship of life" in that it defines the possibilities for the others? Some examples assist in the understanding of these ideas.

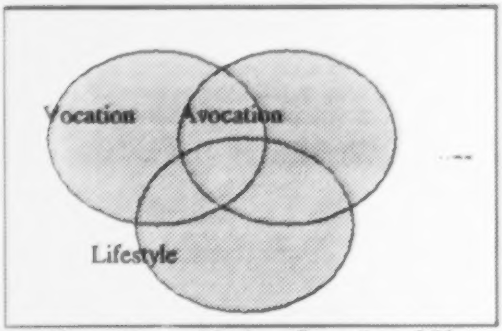

Figure I-1. An ideal configuration of life constructs.

Table I-1.

Definition of Vocation and Avocation

- **VOCATION:** An occupation with commitment, distinguished primarily by its psychological as contrasted with its economic meaning. Vocations are task-, outcome-, and person-centered.
- **AVOCATION:** An activity pursued systematically and consecutively for its own sake with an objective other than monetary gain, although it may incidentally result in gain. Avocations are task-, outcome-, and person-centered, and are usually undertaken for enjoyment. (Sears, 1982)

Example 1.: Upon leaving school a woman has made the choice that she wishes to ski whenever she has any free time. To assist in this avocational interest she has chosen to seek employment as a teacher (vocation) in Colorado. Here it is evident that avocational pursuit has primacy over her work choice and will has many effects on her lifestyle options.

Example 2.: Life at sea has been a dream for one young man. He responds to a job announcement that seeks people to work as deckhands on a world traveling steamer. He applies and is hired (vocation). Once at sea he realizes that he no longer can keep a garden (avocation) nor can he attend meetings of his fraternal organization (lifestyle).

Example 3.: Due to faulty controls of toxic wastes a family has been forced to move from their long-time home to a location that offers a more arid climate. The parents have been forced to give up their jobs (vocation) the children their schools (vocation-like) and the friends and activities to which they have become fond over the years (life-style). In their new life they find that new neighbors are weavers, woodworkers, baseball players, and Girl Scouts (avocation).

Example 4.: One fellow is finding it impossible to work as a welder at a remote Alaskan pipeline maintenance station (vocation), collect exotic fish (avocation), and keep up with the disco crowd (lifestyle).

Perhaps it can be inferred from these examples that one's lifestyle is composed of the clubs and organizations to which one chooses to belong, residential and living accommodations, and leisure pursuits, among other factors. In this sense lifestyle differs from vocation and avocation while going beyond the discussion of leisure offered by McDaniels (1984b) to include such other diverse aspects as family size to even the color one chooses to paint a house or apartment. Furthermore, Greenhaus (1987, p. 11) discusses this interrelationship when he writes, ". . . leisure, family, and self-development are also seen as legitimate and important activities that, at times, take precidence over work. In a sense, then, many employees seem to be seeking a bounded involvement with work."

According the the Youth Credentials Work Group (1985), the broad competency area Life/Work Management is composed of the specific competencies of managing personal responsibility and problem solving/coping. Achievement of competence in the sub-factor of managing personal responsibility is demonstrated through an ability to:

- develop primary and alternate transportation sources to work setting
- arrange for adequate primary and back up child care services
- provide basic needs such as food, shelter, clothing, etc. for self and dependents, and utilize appropriate social service agencies when necessary
- employ consumer skills to plan and maintain a realistic weekly budget
- express awareness of general employer expectation regarding substance abuse which includes alcohol and drug usage

The skills outlined are minimal, to say the least. It is assumed that possession of these five skills will assist a high school-aged person or young adult to set a balance between work and life responsibilities within the vocation, avocation, and lifestyle framework. And, when necessary, put one aspect of life and career involvement "on hold" to attend to special interests or demands in another. An example would be delaying some avocational pursuit, allowing time for an enrichment coursethat may lead to enhanced job performance.

"Problem solving is a process, and the end 'product' or solution reflects how effectively the process was completed" (YCWG, 1985, p. I-23). A succinct statement for such a powerful concept. Problem solving is a skill, and for some a gift, that is applicable to all aspects of life. Work and play offer problem solving activities that differ only in scope. Is there much difference between the decision processes of a nurse practitioner in treating a patient or the weekend softball coach in considering using a suicide squeeze? Or, how about the junior high school student and his grandmother piecing together a jigsaw puzzle and the broker advising a client on the purchase of an unknown stock? Each roughly approximates the process outlined in Table I-2.

Table I-2.

Steps of Decision Making

- 1. identify and state a problem clearly
- 2. analyze the problem by getting more information if needed
- 3. develop alternative solutions
- 4. choose a course of action that looks feasible
- 5. stick to that course of action or make adjustments in the methods as needed

Managing Personal Responsibilties, as defined by the YCWG (1985), suggests the attainment of autonomy on the part of the developing individual. Movement from a posture of dependence (upon parents, peers, spouse, social services, etc.) to a more functional balance of independence and interdependence in life and career is evidenced in the stated competencies.

Gordon Lawrence, in addition to an overview of personality type concepts in learning style analysis, presents a model for understanding the gifts and liabilities an individual may have in working through a decision making or problem solving model. In *People Types, and Tiger Stripes*, (Lawrence, 1980, pp. 58-65), it is suggested that, through the application of Myers-Briggs type theory (Myers, 1980), a balanced decision making model would place equal emphasis on the definition and analysis of a problem situation, analysis and suggestion of alternative solutions, logical review of the feasibility of options, and implementation of a course of action with consideration to persons involved. Through his work, Lawrence has found that strength in one area is coupled with lesser ability or emphasis in another. [Readers are urged to consult Lawrence's publications for additional information on this model.]

In approaching work with youth it is understandable that skill in, or preference for one aspect of a problem solving model may be manifested within individuals. This is supported by the previous discussion and suggested by the Youth Credentialing Work Group (1985) on page I-23. Assisting youth in gaining a balanced set of problem solving skills will have rewards for both the worker and the employer.

From the definition of problem solving/coping given by the YCWG, this writing team assumes the coping construct is a part of the "sticking to a course of action or making necessary adjustments"; step 5. of Table I-2. An expanded definition of coping would include internal and external persistence or change. Tiedeman's decision making model (1963) offers greater insight into the decision making process that comes following the implementation step which lends much to an understanding of coping. More importantly, Bloom's taxonomy of learning objectives (1956) indicates analysis and synthesis (problem solving and coping) are the highest level cognitive skills. Due to the complexity of these cognitive processes, persons designing career guidance interventions may be prudent to consider behaviors employed in evaluating the achievement of problem solving/coping competence in high school students may be little more than intellectual agreement unaccompanied by true skill in application of these learnings; perceived competence versus instrumental competence.

Pertinent Theories

To more fully understand the achievement of competence in Life/Work Management, a review of the developmental stages in which the students surveyed may be found and developmental tasks on which they are working is in order. Managing personal responsibility and problem solving/coping are quite conceptual in nature. For a high school sophomore many of the related ideas are just that, ideas with little or no true realism in his or her life. Knowledge of the reasoning structures and changes in the quality of reasoning is pertinent to the discussion. Additionally, the work on achieving competence, thought important by the YCWG and the research team of the Maine Occupational Information Coordinating Committee, may or may not be a task of the student group studied.

Intellectual Development

Jean Piaget's work on intellectual development of children (Piaget, 1926, 1952, 1985; Ginsburg and Opper, 1988) defines stages through which development proceeds. Each stage is characterized by differing psychological structures and interactions of the individual and the environment. Movement from one structure to another is evidence of progression to a higher stage within Piaget's hierarchy. A person's level of development represents the "most adequate" reasoning and thought structure at the time (King, 1978).

Through interaction with the external environment an individual is bombarded with stimuli. Structures for organizing, interpreting and making meaning out of stimuli are called schemata (schemes, forms, or styles). When incoming information can be interpreted with an existing reasoning structure then it is described as being assimilated. As mentioned, the current highest level of development is defined by the existing ability to assimilate. When stimuli cannot be processed within an existing structure a new one must be developed to incorporate new information gained from experience (Whitbourne, 1987, p. 180), known as accomodation. Achievement of a state of balance between between assimilation and accommodation is known as equilibrium.

The student group under study has progressed through the Piagetian stages of the sensorimotor period (birth to two years), the preoperational period (two to seven years), and the concrete operational period (seven to eleven years). The formal operations stage begins at about age twelve and continues through adolescence, and defines the stage in which the high school sophomores are operating. If such is the case then these individuals will possess a system of mental operation characterized by flexibility and effectiveness with capacities for hypothetical propositions.

The current level of development among the sophomores is a function of exposure to stimuli and accommodation of new concepts. Career development, then, is a function of exposure to "career development stimuli" and accompanying levels of assimilation and accommodation. Persons with less exposure to stimuli would, in most likelihood, exhibit lower levels of career growth and expressions of importance for the competencies of life/work management.

In these writers' view, the strength of Piaget's model is in the time from birth through the onset of the formal operations stage. Additional richness in following the intellectual and ethical development of individuals during the time from mid-adolescence to middle adulthood is lent by the propositions of Perry (1970) through deeper understanding of structural changes.

While an overview of Piaget's writings, and those of his followers, will suggest that a person of high school age is capable of dealing with the hypothetical, Perry's work expands upon these tenets with a caveat regarding the view of knowledge and sources of *Truth*. Learners in Piaget's formal operation stage parallel Perry's stage of Dualism. Within dualism, the world is assumed to contain answers that are "right or wrong." This posture will allow the individual to handle conceptual issues with a degree of skill and success but the general stance is that a right answer exists. If there are right answers, assumes the individual, then teachers and counselors exist as authorities to present either the answer or the path to the answer.

Parker (1978) discusses the "new catechism" concept in trying to understand the dualistic person. This concept comes from the manner in which individuals with a dualistic posture, and in the formal operation period, accept new ideas from persons viewed as experts with little apparent critical analysis of the learnings. A sense of growing freedom in decision making while lacking experience in the process fosters this behavior in the individual. Knefelkamp and Slepitza (1976) have defined a model of career development founded upon Perry's work that describes the "career style" of dualists. Briefly stated, the dualistic stage "is dominated by simplistic, dichotomous thinking about career planning which is largely controlled by information obtained from external sources" (Herr and Cramer, 1979, p. 97).

The Knefelkamp/Slepitza model (1976) has identified nine areas of qualitative change in which developmental growth is detectable: locus of control; analysis; synthesis; semantic structure; self-processing; openness to alternative perspectives; ability to assume responsibility; ability to take on new roles; ability to take risks with self. These change areas are necessary considerations during the investigation of the achievement of competence in life/work management. While students may be echoing "right answers" to the queries of skill, these other avenues of assessment may lend more appropriate and insightful information, as suggested by theory on intellectual development.

Psychosocial Task Development

Erikson (1968) has suggested that the primary developmental task of adolescence is establishing identity. Requirements of this process and activities which foster identity formation have been outlined by Widick, Parker, and

Knefelkamp (1978). Developing persons need experiences that (1) help to clarify interests, skills and attitudes, and (2) aid the individual in making commitments.

Environmental influences fostering identity allow for (1) experimentation with varied roles; (2) the experiencing of choice; (3) meaningful achievement; (4) freedom from excessive anxiety; and (5) time for reflection and introspection. An issue that arises within persons actively working on these tasks is they are "sometimes morbidly, often curiously, preoccupied with what they appear to be in the eyes of others as compared to what they feel they are" (Erikson, 1959, p. 89).

Super's (1976) life-career rainbow, refined in 1980, suggests nine major roles that describe the life space of individuals: child, student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner. The high school student is actively working on the development of multiple identities. The high school identities include Super's child, student, and worker with citizen roles "played out" within the school and social organizations.

In addition to the personal quest for identity, the high school student is experiencing environmental press from numerous sources. Responses to these challenges call for the mustering of internal and external supports. When the challenges and supports are in a balanced or nearly balanced state then development will proceed at the person's own rate (similar to the Piagetian concept of equilibrium). Excessive challenge or an overly supportive environment can impede development and bring about undesirous consequences.

Often the choices a student must make are based upon an incomplete sense of self at the present, with even less clear views of self in the future. A common task to high school students in North America is the reality of post-high school planning. Herr and Cramer (1979, p. 186) have listed six possible post-secondary options, listed in Table I-3. These options bring the reality of moving from the lifestyle of the dependent child to the more independent young adult much closer. The immediacy of the task or need for a decision can have impact upon the quality of the outcome or resolution of the task. As such, the students under study are actually performing future-problem-solving activities. The consequences for which, at the present time, are practically nil.

Table I-3.

Post-Secondary Career Options

1. Choosing a post-secondary vocational or technical school to pursue some skilled speciality.
2. Gaining access to a college and selecting a major field of study with its myriad implications for later vocational endeavors.
3. Converting part-time work experience while in school into a full-time position in the labor market.
4. Entering the labor market for the first time.
5. Deliberating about military service, marriage, combining work and continuing education.
6. Acquiring an apprenticeship opportunity.

Jordaan and Heyde (1979, p. 4) indicate persons "deal with...vocational development tasks at the 'appointed' or expected times." Readiness for actively addressing career planning tasks is a concept that has been under research by Gribbons and Lohnes (1968, 1982) for over twenty years. Movement through a task hierarchy suggests that there are specific tasks to be addressed a particular points in time. Their work (Gribbons and Lohnes, 1982 p. 127) has found that a significant portion of the population are poorly oriented to career development tasks and can anticipate difficulties with future career processes. While both research teams point out the time of ascendency for specific career development tasks, they also discuss the possibility of recycling to an earlier set of competencies when necessary for persons first encountering new and overpowering obstacles in their development.

Life/Work Competence

Achieving life/work management competence has a hierarchical nature as suggested in the discussion of task approaches to human development. As previously mentioned, the stated skills in managing personal responsibility and problem solving/coping are minimal for entrance to the labor force. Increase in awareness and sophistication of abilities to successfully apply these competencies in the workplace follow a path of differentiation and integration suggested by task theories. The minimal skill levels which may be achieved during the high school years may not be the most appropriate to the life and work situations of the middle adult or the older worker. While life/work management tasks in the school years address achieving entry-level skills the later tasks may relate more to the career aspiration tasks identified by Derr (1986), summarized in Table I-4

It is the contention of this writer that a combined application of stage theory and task theory will offer a more complete picture of the developing individual. The proceeding discussion has suggested that theories of cognitive and intellectual development indicate how a person "thinks" in regard to career development. And, task theory identifies the career development "hurdles" an individual is addressing. Information such as this is of immense value in the design and implementation of career development programming.

Table I-4.

Career Aspiration Tasks

- **GETTING AHEAD** - pursuing traditional career success in terms of rapid advancement in the organization
- **GETTING SECURE** - seeking job security and organizational identity more than advancement or challenge
- **GETTING FREE** - wanting autonomy and independence and the option to solve problems in one's own way
- **GETTING HIGH** - valuing excitement, challenge, and the content of the work
- **GETTING BALANCED** - giving equal priority to career, family, friends, leisure, and self-development activities.

PART II

Selected Findings

Results of the 1987 Employability and Work/Family Integration Survey relating to Management of Personal Responsibilities (MPR)and Problem Solving/Coping Skills (PSC) are presented in this section. Data and statistics reported herein have been obtained from procedures and routines available in the Statistical Analysis System, (SAS Institute, 1985). The major portion of the following writings are based upon analysis of variance statistics in the ANOVA and GLM programs with additional analysis performed with the Waller-Duncan K-Ratio T Test (SAS Institute, 1985, pp. 113-138 and pp. 433-506) when comparisions were between three or more groups. When analyses between two groups were undertaken the least significant difference (LSD) T Test was performed (SAS Institute, 1986, pp. 118) as the follow-up statistic.

The response format for the competency section of the survey instrument called for the student to indicate degree of importance for each item on a Likert-type scale from 1 to 6, with six being the highest level of importance. An importance score for each student was computed by summing the raw score responses for the subscale items. The MPR subscale was composed of three items, allowing a possible score ranging from zero to eighteen. Likewise, the six items of the PSC subscale made it possible for a student score to range from zero to thirty-six. Higher scores on each of the subscales indicate higher levels of importance.

Seven general research questions were generated prior to appproaching the analysis of the data. For each question at least one analysis of variance and relating follow-up statistic was computed in order to investigate possible differences in competency importance among subpopulations of the total sample. The questions guiding the data analysis were:

- 1. Are there differences in the MPR and PSC scores of males and females?
- 2. Are significant differences found in the MPR and PSC scores of persons indicating work environment preferences?
- 3. Are any differences in MPR and PSC scores detectable between students expressing differing plans for their life following graduation from high school?
- 4. Do the MPR and PSC scores of students of varying levels of educational aspiration show any significant differences?
- 5. Do the MPR and PSC scores of students who work differ from the the nonworking students?
- 6. Are there any differences in the MPR and PSC scores of students intending to pursue additional study in Maine compared with those persons intending to study out-of-state?
- 7. Do the MPR and PSC scores differ between the groups of students indicating higher, lower, or similar levels of ability in comparison to their peers?

Summary of the Raw Data for MPR and PSC

A general summary of mean and response frequency for each of the items for the MPR and PSC subscales is offered in Table II-1. A strong trend observable in the table is the fiftieth percentile tends to fall in response category four or five.

The most notable deviation from this trend is the set of responses for PSC1; dealing with gender bias and stereotyping. While about half of the students report high levels of competence on the subscale items it is important to consider the half of the sample falling across the zero to three reponse categories. Such a set of results may indicate students perceive many of these competencies to be important to their future life and work situation. But at this point in their lives, gender bias and stereotyping do not have much of an impact on these individuals.

Research Question One

1. Are there differences in the MPR and PSC scores of males and females?

Found in Table II-2 is a presentation of mean scores for the two subscales of Life/Work Management (LWM) for the entire sample and for males and females. The comparison of the male and female scores in the table shows the females to indicate higher importance scores than the males. A further analysis of the male and female scores, reported in Table II-3, finds the differences to be significant within the levels set for this study. It is then to be assumed as the first reported finding that the females tend to report higher levels of importance for the competencies of MPR and PSC, the two subscales of Life/Work Management, than do the males.

Therefore, the response to the first research question is: Yes, there are significant differences between the MPR and PSC scores of the males and the females in this study.

Table II-1

Mean Score and Response
Frequency for Subscale Items

	Mean	0	1	2	3	4	5	6
MPR1: **Develop and maintain a personal budget.**	4.8	3	41	23	53	118	174	342
MPR2: **Apply consumer skills such as comparative shopping budgeting for home management.**	4.4	3	34	46	102	177	201	191
MPR3: **Describe the impact of drug and alcohol abuse on employment.**	4.6	5	44	49	74	108	188	286
PSC1: **Understand how sex role bias and stereotyping hinders people trying to enter the world of work.**	3.4	5	126	73	189	167	72	122
PSC2: **Stick to a planned course of action or make adjustments to that plan based upon its success or failure.**	4.5	2	30	35	83	180	247	177
PSC3: **Devise plans to overcome barriers to educational choices and employment.**	4.4	2	28	33	108	175	222	186
PSC4: **Develop more than one solution to a problem from which to choose a likely course of action.**	4.3	3	49	45	102	167	193	195
PSC5: **Identify and state problems clearly.**	4.6	1	33	39	70	122	235	254

Table II-2

Subscale Means for Total Sample And Females and Males

(Total N = 754)

	Sample Mean	Standard Deviation	Female Mean	Female N	Male Mean	Male N
Managing Personal Responsibilities						
	13.8	3.38	14.2	376	13.3	372
Problem Solving/Coping						
	25.9	5.78	26.5	376	25.3	372

(Discrepancy between total of Female N and Male N is due to some students not indicating gender on survey.)

Table II-3

ANOVA of Male and Female MPR and PSC Scores

Competency	F Value	R-Square	PR > F
MPR	14.35	0.018874	0.0002
PSC	7.54	0.010003	0.0062

Research Question Two

2. Are significant differences found in the MPR and PSC scores of persons indicating work environment preferences?

The survey instrument gathered responses to student preference for future work environment on two items. The first was item 11, selection of the most appealing Holland work environment. In this activity the student rank ordered from 1 to 6 the most appealing to the least appealing work environment.

Similarly, in item 24 the students were asked to rank order occupational interest areas, descriptions obtained from the *Guide to Occupational Exploration* (GOE), (U.S. Department of Labor, 1979). This ranking activity directed the students to indicate from four sets of rankings the most appealing occupational area. The results of the Holland ranking activity are summarized in Table II-4, and Table II-5 summarizes the GOE area rankings.

Table II-4

Ranking of Preferences for Holland Work Environments

(N = 736)

Realistic	190
Social	158
Artistic	129
Investigative	94
Conventional	90
Enterprising	75

Table II-5

Ranking of Preferences for GOE Interest Areas

(N = 572)

Artistic	76
Humanitarian	76
Leading	66
Mechanical	59
Business	58
Scientific	56
Plants and Animals	52
Protective Services	44
Physical Activity	33
Accomodating	28
Selling	17
Industrial	7

Each of the two tables suggests distinct expressions for work environment preferences among the students responding to the items. The Holland environment results show the top two preferences, Realistic and Social, to be exact opposites according to Holland's (1985) descriptions of the work environments. This finding supports any claim that student preference for a work environment is somewhat independent in the survey sample.

Similar to the Holland work environment preferences, there seems to be a dispersion of preferences among the GOE interest areas. In each set of responses there is a fair amount of variability among the choice options, with no one or two choices dominating the results for the two items.

An analysis of variance of the MPR and PSC scores was computed for the six Holland environments and twelve GOE interest areas, with a follow-up Waller-Duncan K-Ratio T Test. The Holland environment results summarized in Table II-6 indicate a significant difference in both the MPR and PSC scores. The MPR scores fall into three distinct Waller groupings, with four categories of PSC scores as summarized in Table II-7 and Table II-8. From the results observable in Table II-7 and Table II-8 it is evident that there are differences on MPR and PSC mean scores between the six Holland work environment preferences on each subscale.

For the Waller Groupings of the MPR and PSC scores of the twelve GOE interest areas reported in Table II-9 and Table II-10 there is evidence of a slight trend for the students preferring the Business area to have the highest importance scores. Students indicating the Industrial area as the most preferred work setting had mean scores lower than all the others in both tables but the N of seven, compared to 17 as the next lowest in size, may have had more of an influence on the outcomes than the tables may suggest.

In regard to the second research question, the reported results suggest that within the sample studied: There are significant differences in the MPR and PSC scores of persons indicating work environment preferences.

Table II-6

ANOVA of MPR and PSC Scores for Holland Work Environment Preference Groups

Competency	F Value	R-Square	PR > F
MPR	2.66	0.017861	0.0217
PSC	5.87	0.038620	0.0001

Table II-7

Waller Groupings for Holland Work Environment Preference Groups On Means of MPR Scores

Waller Grouping	Mean	N	Holland Environment
A	14.46	158	Social
AB	14.05	75	Enterprising
AB	14.02	129	Artistic
AB	13.52	90	Conventional
B	3.29	94	Investigative
B	13.31	190	Realistic

(Means with the same letter are not significantly different)

Table II-8

Waller Groupings for Holland Work Environment Preference Groups On Means of PSC Scores

Waller Grouping	Mean	N	Holland Environment
A	27.05	94	Investigative
A	26.88	158	Social
AB	26.64	129	Artistic
AB	26.60	75	Enterprising
BC	25.21	90	Conventional
C	24.24	190	Realistic

(Means with the same letter are not significantly different)

Table II-9

Waller Groupings for GOE
Interest Area Preferences
On Means of MPR Scores

Waller Grouping	Mean	N	GOE Interest Areas
A	14.72	58	Business
AB	14.54	28	Accommodating
AB	14.47	66	Leading
AB	14.26	76	Humanitarian
AB	14.06	17	Selling
AB	13.82	56	Scientific
AB	13.65	52	Plants and Animals
AB	13.59	44	Protective Services
AB	13.46	59	Mechanical
ABC	13.36	33	Physical
BC	12.64	76	Artistic
C	11.42	7	Industrial

(Means with the same letter are not significantly different)

Table II-10

Waller Groupings for GOE
Interest Area Preferences
On Means of PSC Scores

Waller Grouping	Mean	N	GOE Interest Areas
A	28.13	58	Business
AB	27.64	56	Scientific
AB	27.57	28	Accommodating
AB	27.50	66	Leading
ABC	26.88	17	Selling
ABC	26.32	76	Humanitarian
ABCD	26.18	33	Physical
ABCD	25.28	76	Artistic
ABCD	25.23	52	Plants and Animals
BCD	24.68	44	Protective Services
CD	24.00	59	Mechanical
D	23.14	7	Industrial

(Means with the same letter are not significantly different)

Research Question Three

3. Are any differences in MPR and PSC scores detectable between students expressing differing plans for their life following graduation from high school?

One of the questions on Part One of the survey instrument sought information on students' plans following graduation from high school. While such an item assumes that all persons will be completing their schooling, which may be an erroneous assumption, 727 of students responded. The frequencies of response to each of the eight options for survey item six are presented in order of rank outcome in Table II-11.

It is clearly evident that attending a two-year or four-year college is the choice of the major portion of the students. This sense of decidedness

Table II-11

Student Indication of
Post High School Plans
(N = 727)

Post-High School Plans	N
Attend 2- or 4-year College	341
Do Not Know	117
Enter the Armed Forces	95
Enter the Work Force	59
Attend Vo-Tech School	45
Other	36
Get Married	25
Apprentice	9

on the part of many of the students will assist them in short-term planning for life and career activities. Conversely, the second largest group was found to be those expressing no knowledge of post-high school plans. This could be taken as either a lack of commitment or total lack of knowing.

The results of the analysis of variance performed on the MPR scores and the PSC scores, Table II-12, indicate significant differences between the groups of students of differing plans for life after high school. The MPR results presented in Table II-13 indicate three Waller Groupings in which the college-bound show the highest importance score average while those in the "Do Not Know" group present the lowest score. The high and low groups on the analysis of the PSC scores, offered in Table II-14, are the same as for the MPR scores with the difference being a change in order of the middle groupings.

From the results offered in the tables the response to research question number three is: There are significant differences found on the MPR and PSC importance scores of students expressing differing plans for their life following graduation from high school.

Table II-12

ANOVA of MPR and PSC Scores for Students of Differing Post-High School Plans

Competency	F Value	R-Square	PR > F
MPR	4.38	0.040899	0.0001
PSC	11.04	0.097086	0.0001

Table II-13

Waller Groupings for Students of Differing Post-High School Plans On Means of MPR Scores

Waller Grouping	Mean	N	Post-High Plans
A	14.1	341	2- or 4-year College
AB	14.06	95	Armed Forces
AB	13.78	9	Apprentice
AB	13.55	45	Attend Vo-Tech
AB	13.29	59	Enter Work Force
AB	13.28	36	Other
AB	12.84	25	Marriage
B	12.67	117	Do Not Know

(Means with the same letter are not significantly different.)

Table II-14

Waller Groupings for Students of Differing Post-High School Plans On Means of PSC Scores

Waller Grouping	Mean	N	Post-High Plans
A	27.63	341	2- or 4-year College
A	27.56	9	Apprentice
AB	25.81	95	Armed Forces
ABC	25.22	59	Enter Work Force
BC	25.11	45	Attend Vo-Tech
BC	24.81	36	Other
C	23.12	25	Marriage
C	22.99	117	Do Not Know

(Means with the same letter are not significantly different.)

Research Question Four

4. Do the MPR and PSC scores of students of varying levels of educational aspiration show any significant differences?

This research question was intended to be a follow-up to research question number three which investigated MPR and PSC differences in post-high school plans. In this activity the MPR and PSC scores for students of differing educational aspiration are studied.

A total of 727 students made an indication of their future educational plans. The results presented in Table II-15 appear to be somewhat inconsistent with those offered in Table II-11, but this issue will be covered in a later section of this publication. The indications from the responses to the question on educational aspiration are that the largest group of students express that a high school diploma is the current highest level of educational attainment sought but overall, it would appear that the majority of the students aspire to 2- and 4-year degrees.The outcome of the analysis of variance presented in Table II-16 suggests that significant differences were found between the educational aspiration groupings on both the MPR and PSC scores.

Table II-15

Student Indication of Highest Level of Educational Attainment (N = 727)

Attainment Level	Responses
High School Diploma	243
4-year Bachelor's Degree	158
2- or 4-year Vo-tech Degree	110
Master's Degree	80
2-year Business Degree	62
Doctoral Degree	42
2-year Liberal Arts Degree	32

Further analysis of these scores found four Waller Groupings on the MPR scores, Table II-17, and seven separate groupings on the PSC scores in Table II-18.

The results of the analysis of the MPR scores, as mentioned, fell into three Waller Groupings which is not inconsistent with the outcomes from

Table II-16

ANOVA of MPR and PSC Scores for Students of Differing Levels of Educational Aspriation

Competency	F Value	R-Square	PR > F
MPR	2.97	0.024142	0.0072
PSC	10.17	0.078118	0.0001

Table II-17

Waller Groupings for Students of Differing Educational Aspiration On Means of MPR Scores

Waller Grouping	Mean	N	Educational Goal
A	14.46	158	4-year Bachelor's Degree
A	14.45	42	Doctoral degree
AB	14.31	80	Master's Degree
AB	13.97	62	2-year Business Degree
AB	13.52	110	2- or 4-year Vo-tech Degree
AB	13.28	243	High School Diploma
B	13.09	32	2-year Liberal Arts Degree

(Means with the same letter are not significantly different.)

Table II-18

Waller Groupings for Students of Differing Educational Aspiration On Means of PSC Scores

Waller Grouping	Mean	N	Educational Goal
A	30.07	42	Doctoral Degree
B	27.82	80	Master's Degree
BC	26.92	158	4-year Bachelor's Degree
BCD	26.133	62	2-year Business Degree
CDE	25.22	32	2-year Liberal Arts Degree
DE	24.95	110	2- or 4-year Vo-tech Degree
E	24.34	243	High School Diploma

(Means with the same letter are not significantly different.)

the first three research questions. On the other hand, each educational aspiration level group fell into an almost hierarchical pattern on the PSC scores. As evidenced in Table II-18, students with doctoral aspirations had the highest mean score and lowest mean score was found among the high school diploma group. Between the high to the low score progression went from Master's, Bachelor's, 2-year business, 2-year liberal arts, and 2- or 4-year vocational degree.

In returning to Research Question Number Four it may be stated that: The MPR and PSC scores of students of varying levels of educational aspiration show differences that are significant at the levels set for this study.

Research Question Five

5. Do the MPR and PSC scores of students who work differ from the the nonworking students?

The survey instrument contained two items that gathered responses on students' work behavior. The first was for students to indicate how many summers they had held a full-time job since seventh grade. Of the 747 students responding nearly half had not worked full-time during the summer, and as presented in Table II-19, the next largest group had worked one summer. The second work-related question asked if the students had work part-time during the school year. A total of 745 students responded to this question with slightly more than half (425) indicating they had worked part-time during the school year. Analysis of variance procedures were performed on the MPR and PSC scores for the summer work group and for the students responding to the part-time work during the school year item.

Table II-19

Number of Summers Students Had Worked Full-time Since Seventh Grade

(N = 747)

Summers Worked	N
None	347
One	192
Two	108
Three	100

Results of the ANOVA procedures for MPR and PSC scores of students responding to the summer work item, presented in Table II-20, indicate significant differences on both subscales. Analysis of variance results on the MPR and PSC of part-time workers and nonpart-time workers indicated no significant differences on either subscale.

Follow-up analyses were performed on the scores of the groupings obtained from the results to the summer work item. Table II-21 and Table II-22 summarize the Waller Groupings for the two analyses. It is clear from reviewing each table that the students who have not worked full-time any summers since the seventh grade have the highest mean scores on both the MPR and PSC subscales.

Table II-20

ANOVA of MPR and PSC Scores for Students Who Have Worked Full-time for 0, 1 , 2, or 3 Summers Since the Seventh Grade

Competency	F Value	R-Square	PR > F
MPR	2.91	0.011596	0.0340
PSC	4.14	0.016426	0.0064

Table II-21

Waller Groupings for Students of
Differing Levels of Full-time Summer Work Experience
On Means of MPR Scores

Waller Grouping	Mean	N	Summers Worked
A	14.15	347	None
AB	13.68	108	Two
AB	13.45	100	Three
B	13.33	192	One

(Means with the same letter are not significantly different.)

Table II-22

Waller Groupings for Students of
Differing Levels of Full-time Summer Work Experience
On Means of PSC Scores

Waller Grouping	Mean	N	Summers Worked
A	26.58	347	None
AB	25.73	108	Two
AB	25.55	192	One
B	24.42	100	Three

(Means with the same letter are not significantly different.)

Table II-23

Student Responses Regarding Meeting
Post-secondary Educational Plans In Maine
Frequencies and Subscale Means
(N = 743)

Student Response	N	MPR Mean	PSC Mean
Yes	339	4.13	26.21
Do Not Know	233	13.52	25.31
No	171	13.53	26.22

From the results of the analyses of variance the response to Research Question Five would be: The MPR and PSC of students who work differ from the nonworking students. A qualifier would have to be included to define students who work as students who have worked full-time during the summer months and not include part-time work during the school year in the definition.

Research Question Six

6. Are there any differences in the MPR and PSC scores of students intending to pursue additional study in Maine compared with those persons intending to study out-of-state?

During the sophomore year of high school the reality of post-secondary educational planning may tend to urge students to become more aware of their educational options. Responses to previous research questions suggest that differences on the MPR and PSC subscale scores for students of varying educational and career aspiration exist. The intent of Research Question Number 6 is to investigate possible differences on the MPR and PSC subscales of students planning their post-secondary education in Maine as compared with those stating an out-of-state preference.

Table II-24

ANOVA of MPR and PSC Scores for Students Planning to Pursue Post-Secondary Study In or Out of Maine

Competency	F Value	R-Square	PR > F
MPR	2.95	0.007914	0.0529
PSC	1.94	0.005229	0.1438

A total of 743 students responded to the post-secondary education planning item. From the results in Table II-23 it is seen that the largest group are those student intending to study in Maine, with well over twice as many students stating a plan to study in Maine compared with those persons planning to leave the state. The large number of undecided students should not be a cause for alarm in working with high school sopomores.

The reported means on each subscale for all three response groups show little range (MPR range = 0.61; PSC range = 0.91) that suggests little variablity between groups. The analysis of variance outcomes reported in Table II-24 indicate that the differences found are not significant at the levels set for this project.

The results of the analysis of variance lead to a response to the sixth research question that would say: There are no significant differences found on the MPR and PSC scores of students intending to pursue additional study in Maine compared with those persons planning to study out-of-state. With the large number of students stating indecision on this item at the time of the survey and awareness of the level of realism in the life and career aspirations of persons at the level of development of the sample studied, the results ought to be taken as an indication of of a possibility rather than a certainty.

Research Question Seven

7. Do the MPR and PSC scores differ between the groups of students indicating higher, lower, or similar levels of ability in comparison to their peers?

Item 23 on the survey instrument asked students to respond, Higher, The Same, or Lower, when the folowing item stem was posed to them, "Compared to other students in the majority of your classes are your abilities . . ." A total of 733 students responded to this item with a vast majority of them indicating they viewed their abilities as about the same as those of their peers, as Table II-25 presents. The table also shows the range for the mean importance scores on the MPR and PSC subscales. Lack of variability on the means for both MPR and PSC suggests there would be no differences on the mean importance scores between the ability groupings; which is supported by the ANOVA results offered in Table II-26.

The data presented would support a statement that, the MPR and PSC scores show no significant differences between the groups of students indicating higher, lower, or similar levels of ability in comparison to their peers.

Summary

Of the seven research questions generated for this section of the monograph, five received affirmative responses and two negative. The research questions have been stated again below with an indication of affirmative or negative response.

- **Research Question 1:** Are there differences in the MPR and PSC scores of males and females? **YES**
- **Research Question 2:** Are significant differences found in the MPR and PSC scores of persons indicating work environment preferences? **YES**
- **Research Question 3:** Are any differences in the MPR and PSC scores detectable between students expressing differing plans for their life following graduation from high school? **YES**
- **Research Question 4:** Do the MPR and PSC scores of students of varying levels of educational aspiration show any significant differences? **YES**
- **Research Question 5:** Do the MPR and PSC scores of students who work differ from the nonworking students? **YES**

Table II-25

Frequencies and Mean Competency Scores of Student Comparison of Abilities with Peers By MPR and PSC Mean Scores

(N = 733)

Comparison of Ability	N	MPR Mean	PSC Mean
Higher Than Peers	178	13.35	26.46
The Same as Peers	520	13.97	25.80
Lower Than Peers	35	13.42	24.80

Table II-26

ANOVA of MPR and PSC Scores for Student Groups Comparing Abilities to Peers

Competency	F Value	R-Square	PR > F
MPR	2.39	.006516	0.0910
PSC	1.53	0.004161	0.2183

- **Research Question 6:** Are there any differences in the MPR and PSC scores of students intending to pursue additional study in Maine compared with those persons intending to study out-of-state? NO
- **Research Question 7:** Do the MPR and PSC scores differ between the groups of students indicating higher, lower, or similar levels of ability in comparison to their peers? NO

PART III

Discussion and Recommendations

The general trend in the findings summarized in Part II was that significant differences were found between subgroupings of the students surveyed on the MPR and PSC subscale importance scores. The data that has been generated was obtained from a rather large sample of Maine high school sophomores that may allow many of the results obtained to be generalized for the sophomores in the entire state. On the other hand, this is the first administration of the survey instrument does not allow for any comparison with standard scores or with any other student population groups. The intent of the staff of the Maine Occupational Information Coordinating Committee is to incorporate this data in a longitudinal study of the sophomore cohort. The study will employ annual assessment of career development constructs of the cohort with assessment of the life/work management constructs again at the senior year and five years after the group's graduation date. At those times the results obtained in this "baseline" survey will be incorporated into the data analysis.

For the task at hand, the discussion will focus on the use of the information gathered and reported for the benefit of the students surveyed in the form of recommendations for educators. Five sets recommendations have been developed that include (1) gender differences, (2) indication of work environment preferences in applying Holland's theory of personality and work environments, (3) decidedness of post-secondary planning, (4) educational aspiration, and (5) consideration for the awarenesses gained through full-time work experience.

Each recommendation will be based upon the theoretical constructs presented in Part I and data reported in Part II of this portion of the monograph.

Gender Differences

Ginsberg and Opper summarize some of the work of Piaget in studying the development of adolescents. They state that, "the adolescent makes reality secondary to possibility" (Ginsberg and Opper, 1988, p. 200). This statement is an indication that the more rapidly developing adolescent will be able to negotiate abstract concepts with greater effectiveness than those who are developing at slower rates. Educators in the local school can employ standardized test scores, physical growth charts, and observation to compare the growth of males with females.

The results obtained on The 1987 Employability and Work/Family Integration Survey have shown the females to manifest higher scores on managing personal responsibility and problem solving/coping. These results may be an indication that females are more prepared to deal with the abstract concepts that pertain to future problem solving and meaningfully discuss events that lie three to five years in the future than their male counterparts. If the old wives' tale that girls grow faster than boys holds to be true then there is a need to present information to girls at a time and in an order that differs from boys. The work of Piaget and his colleagues supports the tenet that adolescent males and females will develop similar learning and reasoning structures. Invariance of the sequence for developing is found in all persons while the attainment of differing levels of achievement varies with intelligence and social environment (Piaget and Inhelder, 1969, p. 153). Additionally, Osipow (1983, p. 270) reports, "Some data exist to suggest that the rate of development of verbal, spatial, numerical, and analytical abilities is different across gender," but is unable to pinpoint the reason for such difference.

Career development programming in high schools may be enhanced by applying some of the results obtained in the study of the gender differences. Rather than design a "one size fits all" set of activities, the educational planner may wish to have some activities that are not conducted in a heterogeneous group. At times the girls could work separately from the boys, having each group report their outcomes to the other. In this style of learning the direct competition between boys and girls could be minimized in the small group activities while drawing upon the strengths of each gender to the benefit of the other in the large group sharing.

Readiness for vocational planning, a concept employed by Gribbons and Lohnes in their longitudinal work on career development (Gribbons and Lohnes, 1982), may be manifested differently in boys than in girls. The girls' higher importance mean scores on MPR and PSC may be an indication that they are more ready than the boys for making meaningful life and career plans. This may also represent heightened readiness for learning activities that will assist them in planning process.

Lastly, the results suggest that the boys may need some additional assistance in approaching the life/work management competencies. They have expressed lower levels of importance for these competencies than did the girls in their class. This may be indicative of several need areas that would include realistic future planning skill development, gaining greater awareness for the processes of problem solving and decision making, and managing their finances.

Work Environment Preferences

Selection of preferred work environment is a student's indication of the psychological environment in which he or she would be comfortable while at work. Holland's (1985) theory places much emphasis on work environments and congruence between personality type and environment models. Persons satisfied with one work environment tend to possess personality types that match the type of the setting. From the work of Holland, a person's type is predictive of the environment in which satisfaction may be found and vice versa.

In reviewing the results of the students surveyed it is evident that differing levels of importance for the skills of managing personal responsibility and problem solving/coping are manifested among the six Holland types. Initial observation could lead to spurious assumptions if the data of Part II of this portion of the monograph is the sole source of information. The report of O'Shea (found elsewhere in this monograph) adds much to the understanding of expressed and assessed work environment and personality type. But for the present discussion the information in Table III-1, page 24, will provide adequate support.

The tabled findings show that nearly half the males preferred Realistic environments and females Social. Each gender group also indicated the other's top choice as the sixth most preferred, or least preferred, work environment. Working strictly from the standpoint of stereotypes in gender and in occupational selection of males and females, such a finding is not disturbing.

But the question for a researcher could be, "Did the prior analysis of variance detect environment preferences or was it an additional measure of male/female difference?" The information to formulate a concrete answer is confounded in the data as gathered. As such, how can these results best be applied to the benefit of the sophomore respondents? Two recommendations are offered.

If the males and the females tend to make stereotypic selections then career programs could be devised that would expand horizons into nontraditional occupations. This first recommendation is not new to career guidance personnel but the results do point to continued need in this area.

The second recommendation can be taken for its own merit or used to put the first into action. Holland's theory succinctly defines the per-

Table III-1

Most Preferred Work Environment by Gender

(N = 736)

Environment	Males	Females
Realistic	173	16
Investigative	61	33
Artistic	48	80
Social	14	142
Enterprising	34	41
Conventional	31	57

sonality of individuals in each of the six types. With about a fourth of the total sample selecting Realistic as the most preferred environment and another fourth indicating their preference for Social an understanding of these opposite types as learners will enhance the delivery of career development programming.

Words that Holland has used to describe the Realistic type include: practical, asocial, persistent, uninsightful, uninvolved (Holland, 1985, p. 19). How might this person prefer a learning environment to be structured? Again, Holland has written that this type has a preference for, "activities that entail the explicit, ordered, or systematic manipulation of objects, tools, machines, and animals and to an aversion to educational or therapeutic activities" (Holland, 1985, p. 19). Concrete learning activities with a high degree of immediate reward will meet many of the learning environment needs of the Realistic person, male or female.

Turning to the Social types, Holland has describe this type with such terms as: idealistic, sociable, warm, empathic, understanding (Holland, 1985, p. 21). The preferred activities for the Social type, "entail the manipulation of others to inform, train, develop, cure, or enlighten; and an aversion to explicit, ordered, systematic activities involving materials, tools, or machines" (Holland, 1985, p. 21).

The learning environment for these opposite types, too, is in opposition. If the student group surveyed is indicative of the entire population of high school sophomores, then learning styles must be accounted for in educational planning.

The work of Gordon Lawrence (1983), while not based on Holland's theory, is an orientation to learning styles and application in the teaching and learning process.

School counselors and teachers tend to be Social types and persons usually teach in the manner in which they best learn. Could it then be an assumption that career development programming may tend to favor the Social types? The results of the analysis of variance and follow-up statistics show the Social types to have the highest mean scores on managing personal responsibilities (falling into a separate category in the Waller groupings), and the second highest mean score on the problem solving/coping competencies (but in a separate Waller Grouping with the highest mean score group). On both of these subscales the Realistic group had the lowest mean scores of all six personality types. Do not let it be taken that a direct cause and effect relationship between teacher type and student type is the reason for the lower Realistic scores, but such awareness should be employed in the execution of career development learning modules.

Decidedness of Post-Secondary Planning

From the prior discussion of pertinent theories it should be evident that many external influences are operating on the decision making processes of the sophomores. But, the students functioning at higher levels of development may possess a greater sense of autonomy in making future planning decisions. This last statement is supported in the findings of Part II for the two largest groups responding to the item on post-high school plans were 2- or 4-year college (N = 341) and Do Not Know (N = 117). It is clear fom Table II-13 and Table II-14 that the college-bound students have the highest MPR and PSC mean scores with the undecideds having the lowest scores.

For each of the 117 undecideds there is the possiblity for a different reason for not making a commitment. Any number of personal, family, economic, and social issues could be pressing the individual to keep options open. At the same time the students are still over two years from graduation, when the future becomes the present, and decisions will have to be implemented. How decided are the decideds, and why are the undecideds undecided? These questions may form the foundation for an extended learning activity on life and career planning.

Piaget's ideas of assimilation and accommodation, together with the cycle of differentiation and integration of the psychosocial theorists, would allow room for many changes of choice and opinion over the time between the sophomore year and accepting a diploma at graduation.

Information on grade average by post-secondary plans category, summarized in Table III-2, suggests higher level of educational success on the part of the 2- or 4-year college group, and lower grades among the Do Not Knows. The low grade point average of the undecided students could be an indicator for their entering the work force rather than entering some competitive post-secondary educational programs. While this group expresses the lowest levels of importance for the competencies of managing personal responsibility and problem solving/coping, it just may be the group in need of significant intervention on the part of those responsible for career guidance in the schools.

The recommendation here would be to offer some intrusive programming to the undecided students. The goal would not be to make a decision but to expose students to options and assist program staff in learning why each individual

Table III-2

After Graduation Plans

By Grade Average

Post-High Plan	A avg.	B avg	C avg.	C/D avg.
Apprentice	0	3	4	2
Armed Forces	3	36	34	20
Attend Vo-Tech	0	15	20	9
Do Not Know	4	24	57	30
Marriage	0	10	8	5
Other	1	13	17	4
Enter Work Force	0	19	25	14

has not come to a decision--many reasons are quite valid.

Educational Aspiration

Students aspiring to lower educational levels, not to imply that obtaining a high school diploma and entering the work force is a negative or unworthy aspiration, exhibit lower mean scores on the importance of the subscales of life/work management. Obviously the person seeking a Doctoral degree will be delaying entrance to the work force for many years beyond the time when the high school graduate will be starting employment. But this immediacy suggests a need for acquiring the competencies for life/work management among lower aspirers.

A career class or occupational exploration group that is composed of individuals of similar levels of educational aspiration could cover the topic of life/work management competence. Activities such as this would allow exposure to peers of similar future plans. If the Holland type for each student was available the learning environment and individual learning tasks could be tailored to each person's need and learning style. While development of competence may not occur in this activity the gaining of an appreciation, or valuing, of the competence may increase. The lower aspirers in this study did not exibit lower competence scores, they showed lower mean scores on their indication of importance for the competencies.

Work Experience

From the group of students surveyed it seems like the more summers they had worked full-time the lower the importance placed on the competencies for life/work management. This relationship is nearly inverse to what these writers had expected to find. The students who had not worked at all showed the highest mean scores on the importance for managing personal responsibilities and problem solving/coping. Perhaps why this is so among the sophomores will never be learned but some intuitive reasons are put forth.

Three concepts have guided this intuitive process: quality of work available, field of employment, and occupational level. From the summer of the seventh grade to the sophomore year in high school is about three years. Between those years ages range from about thirteen the first year to up to sixteen the third. What is the quality of the work experiences that are available to the person thirteen to sixteen, even for full-time employment? Many times students in this age range are not allowed by law to work in competitive work situations such as grocery stores and fast food restaurants. This leaves such options as mowing lawns, child care, and delivering papers. While the money may be somewhat rewarding the quality of the work experience does not nearly approximate that of most future work settings. Therefore, students who have worked one, two, or three summers in low quality jobs may not have been in need of the competencies of life/work management.

Often times the field of employment in which high school students find work has no relation to interests, future plans, or skills. Again, how could labor in a field of endeavor that has little or no relation to future plans contribute to future success? Here may be an avenue for intervention on the part of the career development specialist. Helping students to see what is not directly obvious or to learn through vicarious experience: watch the older workers and find out what it is that they do. With an awareness of the LWM competencies the student could try to relate them to coworkers who are and are not very successful in the workplace. Direct the student to ask questions of fellow workers for additional insight and awareness of the need for the skills the defined competencies imply.

The full-time summer worker is recognized as not a permanent member of the staff. As such the benefits available to full-time, year-round workers are not offered. Promotions are not from, say, field work to managerial positions. This work tends to be temporary, low-level with no hope for upward mobility.

Perhaps the students surveyed have developed high levels of LWM competence but due to their experiences in the world of work do not hold them in high regard.

The major recommendation at this point is for the staff of the Maine Occupational Information Coordinating Committee and the Rural Career Development Group to perform follow-up research on the work behavior of the survey sample.

As time passes the impact of work experience may manifest itself in the value attributed to the life/work management competencies. The students will continue to develop and make better meaning of their experiences and their environment. Such a new way of gathering and interpreting information may assist in interpreting work activities in more meaningful ways.

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Preparing Adolescents for Their Future Roles: Combining Work & Family

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Work

Family

PREPARING ADOLESCENTS FOR THEIR FUTURE ROLES:

Combining Work and Family

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This is the new generation that wants to have it all--dual-career families, two or three children, long maternity leave, involved fathers, high earnings--without understanding the strains or impact on career advancement, energy levels, and family life. Over 700 high school students in Maine were surveyed in 1987 about their goals for the future, and compared with a 1985 survey of over 700 California undergraduates. Students on both coasts juxtapose current egalitarian gender attitudes with traditional gender attitudes without thinking about the practical implications. Instructors on both secondary and college levels need to inform students about the realities of the work world, issues in role-sharing, and the effect of gender stereotyping. Ideas for a course on work/family life are included at the end of this article.

CURRENT FAMILY STRUCTURES

Futurists such as Alvin Toffler (1970) and John Naisbett (1981) observe that we are living in a time of parenthesis between major eras, called by Toffler the second and third wave civilizations. In such a turbulent and rapidly changing period, it is important to prepare young people for the changes they can expect in their future roles combining work and family in its various contemporary forms. The third wave began in the late 1950's when industrial workers became a minority--most workers now process words and numbers or provide services. Where the industrialized second wave civilization was standardized, hierarchial, and centralized, the third wave civilization is decentralized and based on computerized information-processing. The standard second wave family form was the nuclear family with its bread-winning father, breadbaking mother, and at least two children. Multiple-options are a keynote of the third wave, including various family options.

We may still think of the family as the 19th century type of nuclear family, but it actually represents a small minority of the current families, less than 10% (Sexton, 1985). Since 1978 the majority of married couples have both been breadwinners. Women are about 45% of the workforce. One of the most far reaching social changes of the 20th century is the entry of mothers of young children into the workforce:

62% of mothers with children under 18 were employed in 1985, including 55% of mothers of children under five in 1986. By the end of the 1990s most children over the age of one will have employed mothers. The rapid change leaves us without role models of role-sharing between spouses who both earn the family's living and nurture it as well. In a poll for Time magazine, 80% agreed that "Many women today are having a hard time balancing the demands of raising children, marriage and work" ("The child-care dilemma", 1987). The majority of women work full-time: about 28% of all women workers in non-agricultural industries worked part-time in 1985 (U. S. Department of Labor, 1986; Besharov and Dally, 1986). The majority of women in professional careers are teachers and nurses--not highly paid jobs. Only 14% of couples both have careers, with only 6% both having high-paying technical and other professional and managerial jobs.

The single parent family is the most rapidly growing family type, consisting of 26% of families with children. It increased by 69% from 1970 to 1983. One out of every five children, and more than half of all black children, live in a one-parent family. Usually that parent is female (90%) and often is poor. Working women earn 64% of what men earn; a female college graduate still averages as much as a man who dropped out of school in the eighth grade.

Many more Americans are living alone than ever before--single people comprise 23% of U.S. households. At 50% the divorce rate for recent marriages is the highest in the world. But Americans do believe in marriage anyway. Most divorced people remarry (5 of every 6 divorced men and 3 of every 4 divorced women). This leads to a large increase in the number of stepfamilies. The typical family pattern by the year 2000 will be to live alone or with a roommate for a while after leaving one's parents' home, marry, have less than two children, divorce, be a single parent, then remarry (Charner and Furstenberg, Jr., 1982). Elderly women are more likely to become single again due to the death of their spouse. We need to prepare young people for the reality that both men and women need career training as they will work most of their adult lives. Many women will become the single heads of their families, responsible for most of the economic support, and again be single in their old age. Young women need to examine their choice of traditional female jobs which are usually low paid.

THE IMPACT OF DIVISION OF FAMILY WORK

Men with working wives do around 30% of the family work, only 10% more than husbands with homemaker wives (Pleck, 1985, p. 146, p. 150). Women had less leisure time in 1983 than they did in 1959 (Bloom, 1986). After an extensive survey of American Couples, Philip Blumstein and Pepper Schwartz concluded that, "His work gives him a great deal of influence. The assumption that they should be indulged shapes the lives of heterosexual men" (Blumstein and Schwarts, 1983, p. 326). Furthermore, even when couples stated that they believed in sharing, "the idea of shared responsibility turned out to be a myth." *50-50 Parenting* also found that among couples who consider themselves egalitarian, women spend more time parenting. Husbands in first marriages reported spending 29 hours a week on child care compared to their wives' 41 hours (Kimball, 1988, p. 264).

Men have a sense of "entitlement," according to a study of Men In Dual-Career Families (Albino Gilbert, 1987, p. 20). An example is that dual-career couples are more likely to move for the man's career than the woman's (Catalyst, 1981). Even the co-authors of a book on dual-career marriages struggled with inequality. Francine Hall explained after her divorce, "Our marriage was fine as long as I went along with him, made [job] compromises or sacrifices and didn't talk about them" (Lublin, 1986). The implication is clear that what men do is more important than what women do. Hopefully we can give children a different message, more suited for the fast approaching 21st century. A recent study found that in dual-earner marriages, both spouses having MBA degrees, the men had a higher anxiety level than their wives and earned less than MBA men with homemaker wives (Harrell and Baack, 1986). The new pressure on men to be superfathers and sensitive companions is making life difficult for them as well as for supermoms.

Joseph Pleck (1985, p. 156) examined why husbands of working wives do 30% rather than half of the family work, despite the fact that "the majority of men are more psychologically involved in their families than in their jobs." He concluded that men have longer and inflexible work hours and earn more than women; if men spend more time with their families, they will produce less at work. Furthermore, they follow the example set by their father's social attitudes and the media reinforce inequity, they lack some domestic training, and men may not receive support for change from their wives or their friends. Pleck notes that only around half of wives surveyed wanted more help from their husbands. In studies of role-sharers in *50-50 Marriage* and *50-50 Parenting*, I found a significant influence is having the self-confidence and belief in gender equality necessary to swim against the current of traditional roles. In addition, couples often react to their own fathers lack of involvement in family life, and vow to be different.

Because of the lack of role sharing, women have had to choose between a high powered career and family, unlike their male counterparts. In a Wall Street Journal survey (Rogan, 1984) of top women executives, only around a third of the women under 40 had children, perhaps because only 5 percent of their husbands assumed sole responsibility for any childrearing tasks. This survey replicates other studies (Mall, 1985) showing that successful women are much less likely than their male counterparts to have spouses and children. Combining marriage, parenthood, and work poses little role conflict for men since women provide them with support services at home and at work. Yet young women seem to think that the woman's movement solved problems of inequity. A female senior vice-president, Joanne Black, warns about the invisible wall that prevents most women from progressing beyond middle management: "There is always a wall. It's just that now, younger women think the issue has gone away. Then they hit that wall. They're unprepared for it" (Jacobs and Hardesty, 1987). Young women need to be informed that only 2% of the top management in large corporations are women.

Despite the fact that studies show that employed women have a greater sense of mastery over their lives, more self-esteem, better mental health, and fewer physiological symptoms of stress than homemakers (Baruck, Barnett, and Rivers, 1983, pp. 37, 104, and 144; Moen, 1983, p. 24; Ferre, 1984), some mothers are so burdened they are leaving careers which do not accommodate the needs of working parents. One out of four women graduates of the Harvard Business School class of 1970 has quit her managerial work (Jacobs and Hardesty, 1987). Recent books such as *Staying Home Instead* tell mothers "How to quit the working-mom rat race and survive financially" (Davidson, 1986). No such books are written for fathers. Employed mothers report being plagued by guilt feelings (Berg, 1987). The lack of U.S. social supports for employed parents results in over seven million latchkey childern, adding fuel to the fire of their mothers' guilt feelings. However, studies agree that children in good child care develop similarly whether their mothers are employed or not (D'Amico, Aavrin, and Mott, 1983, p. 145). Girls, especially, are proud of their working mothers and benefit from independence.

ATTITUDES OF YOUNG PEOPLE

Our future rests with young people. To find out if their attitudes are changing, I surveyed 755 single college students at California State University, Chico, in 1985 and 1986 (Kimball, 1986). I asked them to predict how they will organize their future careers and family lives. Most of the students plan to have careers and to marry and have two or three children, more than the current birth rate. They are similar to other surveys of college students' "rising expectations" which show men moving toward more focus on family and women on careers, hoping to "have it all" (Kimball, 1988, p.285). Also similar to other surveys of college students, CSUC students plan to continue traditional role divided parenting practices with the added expectation that married women will have careers. They have not given much thought to how they are going to have the large homes and fancy cars they mention in essays describing their lives at age 35, yet almost half the women students plan to stay home more than a year with each child and almost a third want more than two children.

College students surveyed by Catalyst (1987) also had unrealistic notions about the number of children they will have: only 3% thought they would have one child, 46% planned on two children, 31% thought they would have three and 20% more than three children. About a quarter of women students (22%) surveyed for Catalyst (1987) plan to stay home with their first child more than a year: 43% plan to stay home from four to twelve months. Most men don't plan to stay home more than several weeks at the most. Essays written by South Portland, Maine, school students, indicate that girls envisioned a lot of job flexibility--part-time work, work at home, years away from work--to care for their children. Boys gave less thought to issues of combining career and family, and emphasized the kind of job they would hold. In contrast, the Catalyst survey of dual-career business couples found that the median time off work for new mothers was 12 weeks; 68% of the mothers were back on the job four months after the birth of their infant.

However, a national survey of 3000 high school seniors in the late 1970s (Herzog, Bachman, and Johnston, 1983) also revealed consensus among girls and boys that mothers of young children should not work full-time and preferably should be at home full-time. Black students and those with working mothers were more likely to approve of employment of mothers with young children. (To a lesser degree students with higher academic ability, plans to attend college, and liberal political views were also likely to be more approving of employed mothers.) The high school students also professed belief in fathers sharing parenting equally with their wives. But, when asked if it is usually better if the husband works outside the home and the wife takes care of the family, 49% agreed, 36% disagreed, and 15% neither agreed nor disagreed. Adults currently agree that mothers should not work outside the home, (53% of women and 61% of men polled for *Time* magazine think that children suffer when mothers are employed) ("The child care dilemma," 1987; Zuckerman, 1985). When UCLA freshman were asked a similar question a decade later, in 1986, only 20% agreed (Catalyst, 1987). Young people are adopting more egalitarian beliefs without thinking about the practical implications. Catalyst has prepared classroom exercises and bibliography about combining work and family for college students. In their visits to universities they found "Students on many campuses have told us they're going to have it all--careers, personal relationships, children. But when questioned they really have no idea there might be conflicts." Only 13% of the students they surveyed had given dual-earner issues a lot of thought. Few students surveyed by Catalyst at six college campuses (225 women and 152 men) recognized the tradeoffs" required in combining work and family. The women students for example, did not seem to realize that taking extensive maternity leaves would impact on their career development and earnings (Catalyst, 1987). The women did predict lower earnings at age 30 than the men ($29,767 vs. $39,660), despite the fact that almost as many of the women (91%) plan to work full-time most of their adult lives as the men (95%). Women students surveyed by Catalyst have different values than men: it's more important to women to feel needed by others and achieve something important at work. Making money, being one's own boss, having leisure time, and competitiveness are more important to men. The researchers concluded that students are "uneducated about and unprepared for the realities of combining work and family."

A CSUC female comments, "I don't anticipate any particular problems. I've grown up expecting to combine both career and family." In contrast, dual-career couples I've surveyed often describe being exhausted and frustrated by time constraints and conflicting demands of their various roles. Researcher Laura Lein (1984), who studied dual-earner families with young children, describes the "pressures of multiple responsibilities and limited resources" that can result in fatigue and irritation.

Over 100 CSUC student essays predicting a typical weekday at age thirty-five revealed a lack of realism. Energy abounded for dual-careers and children. Time was found to cook gourmet meals, jog, golf or go to exercise classes after work, play with the children and drink wine by the fireplace before "savage love making at bedtime." Very few students mentioned time constraints, fatigue, illness, the possibility of divorce, or children with problems. Large homes, swimming pools, and luxurious cars (Porsches, Mercedes) were mentioned in the pursuit of "the finer things of life." Nannies were described by some.

The following is a typical prediction, by a woman age 21: *At age 35 I am a practicing attorney in a small law firm. I have two young kids. At 6:30 my husband and I wake. We take turns with breakfast and getting the kids up and dressed. The kids get dropped off at daycare (or school or grandparents). I'm at my office by 8:00. My job affords me a certain amount of flexibility with my schedule which means that I will be able to spend weekday hours with my kids. Sometimes my spouse and I will meet for lunch. We both work until 5:00, then pick up the kids and come home. We have a light meal, made by either of us, and then maybe go to the racquet club for some exercise. A nice hot tub and a few games with the kids and we go home. We relax and go to bed fairly early.*

In another essay, asking for predictions of the issues involved in combining career and family, students were more likely to express anxiety about combining a career and family; more were anxious than complacent. "With the 'liberation' of women not only are we expected to be in good shape, intelligent, hold a career, and have kids, we are still supposed to be good homemakers," explained a 29-year-old future teacher. Some women are worried about the super-woman image. "I'm scared to death," wrote a 20-year-old sociology major. "I want a good job really bad and I'm afraid I can't reach my expectations--I guess when it comes to money. It seems like you have to have a lot of money these days to even get married and especially to have children. Those are my expectations--marriage and children--and what if I can't reach them?"

A male computer science major, 20, expresses the financial pressures that men feel. "Much stress will be generated from trying to manage my time to combine family--wife--work. I would rather put spouse and family first, but I don't see how that's possible in our money/production oriented society." Several studies have found that college men have traditional expectations for their future wives. A UC, Davis study (Regan and Roland, 1985) found that although male college students' goals over a decade had shifted to more emphasis on leisure activities and declining emphasis on their career as their primary goal," men as a group are as committed to career values as ever.

Surprisingly, in the 1980s the minority of CSUC students predicted equal sharing. Only 29% of women and 31% of men predicted 50/50 division of childcare, and 42% of women and 46% of men predicted sharing housework equally. Their predictions are realistically similar to 383 dual-career individuals I surveyed to contrast student expectations with current practice, reported on in Life After College: Combining Career and Family. Only 14% of the male students and 30% of the female students predicted equal earnings.

RESULTS

Girls and boys in Maine have similar goals for their job structures, plans to marry and have children and prediction of the main source of their adult fulfillment. More girls plan to attend college; they report higher grades than boys, but they are less likely to rank their abilities as higher than other students and they predict lower earnings at age 30. Boys and girls also differ in the division of family work they expect at age 30 and the types of work they want to do.

More girls than boys are in college preparatory high school programs (53% vs. 43%) and plan to enter a two to four year college (58% compared to 36%). Joining the armed forces after high school is the goal of 22% of the boys compared to only 4% of the girls. About a third of the boys (31%) plan to enter blue collar jobs in contrast to only 12% of the girls. Girls also are more likely to rate themselves as A and B students than are boys (10% of girls report that they are A students compared to 8% of the boys; 46% of the girls are B students compared to 36% of the boys).

Despite the fact that boys are less likely to have good grades and be in a college preparatory program, about half of both genders aim for professional careers. More boys are also willing to rank their abilities as higher than other students in their classes than are girls: Thirty percent of the boys rank their abilities higher compared to 18% of the girls. Boys also predict higher earnings. Despite the fact that almost all girls predict that they will be employed at age 30 (96%, with 10% working part-time) and two-thirds of both girls and boys are willing to move from their hometown to achieve their job goals, over half (55%) of the girls think they will be earning under $25,000 a year, compared to a third of the boys (35%). Almost a fourth of the boys (23%) think they will earn more than $50,000 a year at age 30, compared to only 8% of the girls. Boys have a head start on job experience, over one third (38%) of boys having no summer job compared to over half of the girls (55%). Girls with part-time jobs during school (59%) believe that their job will contribute to future success in work, but again boys are more likely to have this work experience (62%).

Although about a half of both genders plan to work for a company in a well defined job and about a quarter plan to work for themselves, their work interests are almost opposite. Using the Holland classification, girls ranked social environments, "caring for people and helping them to lead better lives," as their top priority (38%) while boys ranked it last (4%). Girls' other interests, in descending order, are: artistic, conventional (a routine job such as a clerical), enterprising (persuading others), investigative (often scientific), with realistic (concrete mechanical activities and physical movement) last. In contrast, boys' interests, in order of frequency, are realistic, investigative, artistic, enterprising, conventional, and social.

Another question about occupational interests revealed similar differences in the gender attitudes. Girls' ranking was humanitarian first (22%), then business, artistic, and working with plants and animals as their top choices. For boys mechanical work was at the top (20%), followed by leading others, artistic, and scientific. Girls predictions of disparate earnings accurately reflect the lower wages attached to social service jobs.

Girls and boys agree that their main source of fulfillment will be family, with girls more likely to respond in the affirmative (54% vs. 45%). About a quarter (26% of boys and 23% of girls) of the students rank their job as their main source of future fulfillment, followed by leisure activities (19% of boys vs. 12% of girls.) Yet they have different ideals about their future family structures. Girls have more egalitarian aspirations, with over half (52%) of the girls compared to a third of the boys (36%), planning on both spouses working full-time and equally sharing the housekeeping and parenting. Boys are more likely to plan on their spouse doing the housekeeping and being the primary parent (30% vs. 18%). Boys are more likely to plan on being unmarried at age 30 than girls (14% vs. 7%), but girls are more likely to plan on being childless and married (14% vs. 7%). Almost no students plan on role-reversal families. Very unrealistically, almost none plan on being single parents. An explanation is the low percent of the Maine students currently living in single parent families (11% of girls and 10% of boys--4% of the boys have their father as their primary parent). Students are also unrealistic, especially girls, in predicting similar earnings for individuals in dual-earner egalitarian families with children as for couples without children. In fact, mothers usually earn less than childless women.

Students are moving away from their parents' current division of labor, as less than a quarter of the students report that their family of origin is egalitarian with both parents equally sharing breadwinning, housework, and parenting. Almost half of their current families are unegalitarian, with women as the primary parent and housekeeper. Women assume a double job of working full-time and running the household in 12% of the girl's current families and 11% of the boys' families. Most girls (all but 4%) plan on employment, although 20% of their mothers do not work outside the home; 10% of the girls plan on working part-time compared to 20% of their mothers.

Another influence on choosing an egalitarian family pattern is that students with higher grades in high school are more likely to select this pattern than students with lower grades, in a descending order for A, B, and C students. Those with aspirations for professional and white collar jobs are more likely to aim for an egalitarian family than those aiming for blue collar jobs. Those that value family over job and leisure as the source of their adult satisfaction are a little more likely to pick the 50/50 pattern of family sharing at age 30. Boys who plan to leave the state are more egalitarian. Only those students who rank leisure as their primary source of future fulfillment do not select the egalitarian family as their first choice--27% plan not to be married at age 30.

DISCUSSION

Comparing the recent responses of 754 Maine 15 and 16 year olds and 755 California undergraduates, mostly ages 18 to 21, reveals significant similarities. As members of the new generation, males and females both plan on combining career and family, most planning on more than one child, with family having top priority. Traditional values linger on with females predicting lower earnings than males and being less likely to rank themselves academically higher than their peers, despite reporting higher grades. The percentages were surprisingly similar, with 30% of Maine and 28% of California males ranking themselves higher compared to 18% of Maine & 17% of California females. (Females are still more oriented to human relationships than boys, according to the Maine and Catalyst surveys of students: CSUC students were not asked this question.) The Maine males and California males and females were similar in that about a third plan on equal division of housework and childcare. Half of the Maine girls expect egalitarian families; perhaps their youth has protected them from disillusionment. Students on both coasts are similar in ignoring the rapid increase in the number of single parent and stepfamilies.

Young people expect to combine jobs and parenting. Most plan on working full-time and also having children. They need to be informed about the realities of the stresses involved in "role-overload" as they try to live up to media portrayals of glamorous careers, romantic marriages, and well-behaved Gerber babies. Techniques of stress-management, clear communication skills, negotiation methods, problem solving, time management, household management and values clarification are required to be able to cope with the conflicting demands of multiple roles. Girls have given up the mythical belief that Prince Charming will carry them off to a castle and support them happily ever after, but couples need to learn the new skills required to negotiate new gender role-sharing. Couples who try to be equal partners require "continued negotiations and . . . struggle to maintain . . . balance," Laura Lein (1984, p. 51) reported.

Girls and boys need to be informed that they have different expectations for how they will structure family life, as different expectations are a major cause of marital dissatisfaction and contribute to the high divorce rate. Boys need to be informed that it is unlikely that they will earn as much as they predict (almost a quarter of Maine boys predicted earnings over $50,000 a year at age 30) and that most of them will need their spouse to work in order to pay for their house payment and children's educations.

Young people need to know about the realities of changing families, the fact that a fifth of children live in single parent families, and a million children a year experience the divorce of their parents. Perhaps a fifth of young women will remain childless, so this family type needs to be considered as well.

Young people need to know about the causes and effects of egalitarian behavior, such as the unegalitarian impact of disparate earnings. Girls need to be exposed to non-traditional jobs for women so that they have the option of earning parity with their spouses. Girls also need self-esteem training, as indicated in the fact that they were less likely to rank their abilities as higher than others in their classes despite their better grades. Self-esteem and assertion skills play a part in developing egalitarian relationships.

Students, especially girls, need to be prepared for the realities of discrimination against women--the invisibility surrounding women--in corporate jobs. This "wall" prevents all but a few from moving beyond middle management. Business courses need to include information about work/family issues and how "corporate culture" relates to women.

Boys, in particular, need to be prepared to give up some of their fantasies about future leisure activities and be given hands-on experience caring for young children, cooking, and mending. A preparation for work and family life course should be mandatory for every student. Suggestions for topics for such a course are located in Appendix 1. Gender stereotypes need to be examined for how they affect students' goals, expectations, assumptions about their abilities, options and future roles. Critiquing the media is useful, since high school graduates have spent more time watching television than in the classroom. Girls' math and science anxiety must be tackled just as schools have made efforts to give boys remedial reading. Women will continue to earn less than men until girls are trained on technical courses which lead to careers in high paying jobs such as medicine and computers.

IMPLEMENTATION

Information has been gathered in the U.S. for teachers about how to be non-sexist in the classroom and pilot projects are sponsored by the Women's Educational Equity Act (Kimball, 1988, p. 292; Wolfe, 1986). The Swedes have done far more to legislate and implement equality in the schools than the U.S. Despite Swedish efforts, students are slow to change from traditional career choices. Boys usually prepare for more highly paid technical areas and girls for lower paid social service and clerical occupations despite active efforts for the last 15 years. Attitudes are slow to change, but improvement is occurring in Swedish schools. Some of the steps taken by Swedish schools which could be duplicated in the U.S. follow (Asekog, 1986). Schools are mandated by law to "work toward equality" and, since the end of the 1960s, goals for equality of opportunity were written into the elementary school curriculum. All students ages 7 to 12 are required to take courses in technology, which includes vocational and scientific training. Students engage in experiments such as studying magnetism, electricity and sound, or making tools like thermometers. Home economics courses are also mandatory for both genders as is computer training. All students spend around 6 to 10 weeks during the course of their schooling interning at prospective work sites.

Non-traditional intern choices are encouraged through classroom discussion, conversations with vocational counselors, and by bringing in speakers to classrooms representing non-traditional jobs. "Betrayal booklets" describe a typical day as a nurse or doing catering, cooking over a hot stove. A booklet called "People Need You" describes how the peace movement needs technical know how, to appeal to girls' desire to be helpful to others. Educators found that, "first of all girls want to know what use technology is. The question of how to do it comes later" (Asekog, 1986). Classroom teachers are asked to integrate vocational guidance and discussion of gender stereotyping in the elementary school curriculum.

Experimental projects in various Swedish cities have found that girls need some training without boys present in order to overcome girls' lack of confidence in their abilities to do technical and scientific work. Special summer and other holiday time courses in technology and computer science are also offered to girls, sometimes with free lunches and a small stipend. Universities participate in the summer training. Introductory courses for girls are offered where they visit work sites, learn to use computers, etc. After a two-year technical program for girls, when they return to mixed classes, the boys "are uncertain as to how much the girls have learned and are not so eager to take charge in the labs" (Asekog, 1986).

Textbooks and contexts in which scientific concepts are explained need to utilize examples of interest to girls, such as looking at why it takes a half hour to boil potatoes in 100 degrees and one hour to bake them at 250 degrees. Tools are used that are familiar to girls, such as curling irons, or as in an exercise involves taking apart and putting together a hair dryer. Girls need role-models of female teachers and women speakers describing their work in technical and scientific fields. The drop-out rate of girls of technical areas is high, partly because of their minority status. Older students are paired with younger students in a mentor system and discussion groups are held to encourage girls to persist. Girls are put together in classrooms to prevent the feeling of being such a small minority.

Teachers are provided with workshops and literature explaining unconscious bias in teaching, such as giving boys more attention in class. Elementary school teachers who need training in technical areas are offered support from local universities, teaching aids, continuation courses, etc. Parents are informed at school meetings about current labor market trends, such as declining numbers of clerical workers due to computer technology, and the need for careful thought before their children select a major, or "line" as it is called in Sweden. Information campaigns are conducted through brochures, videotapes, and handouts for school personnel and for students, informing them about the current labor market, and the percent of girls and boys in various lines, etc. Slow downs in the information campaigns are quickly followed by a drop in the number of girls choosing male dominated lines, indicating that dissemination of current data is effective.

These techniques of special education for girls and their teachers and mandatory Home Economics courses for boys and girls are needed in the U.S. First we need to recognize that families and gender roles are changing and that students need new information and discussion about these issues. A problem exists that has not been widely recognized and therefore little has been done to prepare students for their futures in a rapidly changing world. Students plan to combine old and new values without thinking about the realities and consequences. Schools need to facilitate informed decision making about the future.

APPENDIX 1

Preliminary Ideas for Preparing for Your Future Course for High School Students

- 1. Your career goals.
  - a) Visit desired employers. Schools arrange for week long internships, encouraging students to try out non-traditional jobs. Bring in panels of non-traditional job holders, dual-earner couples, and single parents. Include students' parents. Write a five, ten, and fifteen year plan for after graduation from high school.
  - b) How is the work world different for women and men? Why do women earn 67% of what men earn? Why are women only 2% of top corporate managers? Discuss "Fact Sheet about American Women" . Learn about projections for women's employment patterns. Read *Games Mother Never Taught You* by Betty Harragan.
  - c) Investigate the jobs of the future, i.e. gerontology related jobs as opposed to clerical work being assumed by computers. Futurists note that many jobs will become obsolete or require re-training. Note that you will probably change your job and re-train many times.
  - d) Girls need special encouragement and training to study math and science.

e) Trace your own family's work history, division of family work, attitudes towards men's and women's work, the number of children, and time use. Why has technology not brought more leisure time? Go back as many generations as you can.

- 2. Spouses are assigned by a student committee on the basis of anonymous questionnaires they have completed, describing their backgrounds, values, interests, and goals. Include results of the "Keirsey Temperment Scale," found in *Please Understand Me*. Make a list of what you are looking for in a spouse. Discuss questions for prospective spouses to look at your compatibility. Compare your career goals. How will you assign the list of chores involved in family life? Make a budget. Determine local housing costs, utility bills, insurance, telephone bills, recreation, clothes, medical and dental expenses. Interview parents for additional budget items. Do your own family's shopping, cooking, bill paying, cleaning, yard work, etc. for a week. Describe a typical week day, and a week end day, five years from graduation; do the same for ten years after graduation.
- 3. You are expecting a baby. Modify your budget. Investigate birthing costs, child care availability, cost, and quality. Visit day care centers, home care providers, etc. to check on quality of care. How will the infant be cared for? Can you afford to live on one income? Each couple is assigned a 5 pound flour sack to take care of for a week, as if it were a three month old baby. The baby may never be left alone. Keep a journal.
- 4. Instructor provides information on sexuality (Annual Editions Human Sexuality is readable for high school students), various birth control options, sexually transmitted diseases, health care during pregnancy and birthing. Show films.
- 5. Communication skills (I messages vs. You messages, active listening, fair fighting) negotiation skills, decision making, and problem solving, demonstrated. Spouses are given a problem to solve, such as one of them gets a job promotion to a city where the other one is not likely to find a satisfactory job. *Getting to Yes* is a useful book. Catalyst, New York City, has designed useful exercises to get at issues involved in combining career and family. Practice problem solving in teams, as business is moving toward the Japanese model of management away from the hierarchical model.
- 6. Discuss the media images of romantic love, intimacy, marriage and parenting. Analyze TV soap operas. Bring in popular music. Critique the advertisers message: How can we live more ecologically? Investigate the causes of the 50% divorce rate. Inform the spouses that they are getting a divorce. Each one becomes a single parent, as they split custody of their two children, and each is without child support payments. Modify the budget. What kinds of changes occur?
- 7. Learn about basic parenting skills and child development. Everyone finds a child to take care of for a Saturday and reads about the characteristics of children at that age. *How to Talk So Your Children Will Listen, and Listen So Your Children Will Talk* is a useful book. A report is written about the skills required in caring for a child. Discuss forming a day care center for 3-5 years olds on your campus. What supports are available for teen mothers in your area?
- 8. With the "greying" of America, many of us will be taking care of elderly relatives. Learn about basic issues of elder care and gerontology.
- 9. Learn basic survival skills: balancing a check book, budgeting, car maintenance and repair, how to change a tire, mending, cooking, cleaning, and how to work with a computer.
- 10. Do research on the best employees, school districts, legislation, community

groups, etc. that recognize the needs of employed parents and the fact that men and women are role-sharing, both genders earning a living and nurturing their families. Design an ideal community that you would like to live in, including housing, schooling, work hours, benefits, etc.

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Youth Transition: Work Maturity Basic to Employment Entry & Success

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Work

Family

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INTRODUCTION

Current labor market trends suggest that improving the school and work transitions of youth is a national priority. Over 25 percent of our nation's youth drop out of high school before they graduate. In large cities the dropout rates are even higher at approximately 50 percent. Of those who do graduate about 30 percent make high school graduation the end of their formal education and the starting point for work (National Center 1987). As a result millions of young people are unemployed primarily because they lack the education and proper skills and attitudes to qualify for and keep jobs. For every unemployed adult two young people are out of work; among Hispanic youth that number climbs to three and for blacks it is five (Duggan and Mazza 1986, p. 1).

For the next 15 years the proportion of the labor force in the 16- to 24-year age range is predicted to decline from 30 percent to 16 percent (National Center 1987) and the number of youth in this age range with employment problems will grow. These are the young people whom employers have been able to overlook in the past--young job applicants who are poorly motivated, lacking academic and employability basic skills, and unprepared for the responsibilities and demands of work. Now employers will be increasingly forced to select employees from this labor pool.

For students, their parents, each community, and the State of Maine as a whole, the costs of inadequately prepared high school graduates and disconnected youth are high. The problems they bring to society include unemployment and poverty, alcohol and drug abuse, early pregnancy, single parenting, and crime. For Maine employers the costs can make it difficult to compete effectively in today's world market--a competition that requires firms to have competent, skilled, motivated workers who are productive and easy to train.

Clearly, schools must become more effective in preparing students to be ready for and succeed in work that is appropriate and satisfying to them and their employers. In order to do so, they must teach what is termed work maturity or employability skills. But what is employability? "'Employability' means the capacity and willingness to do the job" (Duggan and Mazza 1986, p. 4), and is generally agreed to consist of four types of skills, which are defined by the U.S. Department of Labor as follows:

- Pre-employment skills include world of work awareness, labor market awareness, labor market knowledge, occupational information, values clarification and personal understanding, career planning, decision making and job search techniques, resumes, interviews, applications and follow up letters. They also encompass survival daily living skills such as using the phone, telling time, shopping, making change, renting an apartment, opening a bank account, and using public transportation.
- Work maturity skills include positive work habits, attitudes, behavior such as punctuality, regular attendance, presenting a neat appearance, getting along and working well with others, exhibiting good conduct, following instructions and completing tasks, accepting constructive criticism from supervisors and coworkers, showing initiative and reliability, and assuming the responsibilities involved in maintaining a job. This category also entails developing motivation and adaptability, obtaining effective interpersonal relations, coping and problem-solving skills, and acquiring an improved self image.
- Basic education skills include reading comprehension, math computation, writing, speaking, listening, and the capacity to use these skills in the workplace.
- Job-specific skills encompass the proficiency to perform actual tasks and technical functions required by certain occupational fields at entry, intermediate or advanced levels. Secondary job-specific skills entail familiarity with and use of set-up procedures, safety measures, work-related terminology, record keeping and paperwork formats, tools, equipment and materials, and breakdown and clean-up routines. (*Federal Register* 1986, p. 22157).

It is the second part of pre-employment skills work maturity skills--upon which the State of Maine focuses as an area needing attention, for although schools, employers, and other groups involved in training young people are clear on how to teach basic education skills and job-specific skills, the area of pre-employment skills, and specifically work maturity skills, is an area that still falls through the cracks, albeit unintentionally.

The Center on Education and Training for Employment, which has engaged in extensive technical assistance and training in the area of youth employment competencies, regularly uses an exercise with employment and training practitioners called the "ideal worker" in which they are asked to name 20 traits a young person entering a job should have. Over 75-85 percent of the answers generally fall in the work maturity category. When asked how youth are taught work maturity skills, however, the practitioners are generally vague or cannot answer at all. It seems as if many people are surprised to learn that good work habits can be taught directly (National Center 1987).

In *A Systems Approach to Youth Employment Competencies*, the U. S. Department of Labor's 1986 technical assistance guide for use in JTPA programs, specific reference is made to the teaching of work maturity skills, stating that--

> There is a distinct lack of systematic means to teach, track learning, and measure progress in work maturity. Manifestations of this are all too common, as youth who have basic education and job specific skills, and pre-employment competencies get jobs, and soon lose these jobs because of lateness, absenteeism, or inability to work with others, control impulses, solve problems, or work within an authority structure. The need is to translate employer expectations into operative program approaches which provide work maturity competencies to young people. (p. 221.)

Agreement exists, then, regarding the need for teaching work maturity skills. In fact, work maturity training has been determined to be the key to making youth training programs successful. Many programs have demonstrated that youth need a combination of basic education, remediation, training, career and labor market information, job search skills, and good work experience to make a successful school-to-work transition. By training to enhance youth's employability rather than just to make job placements, training professionals are able to structure programs that are most effective for youth. The added element of work maturity skills training allows young people to develop the self-confidence, motivation and enthusiasm they need to meet the challenges of the workplace (National Alliance of Business 1986).

However, there is considerable variation in what skills are considered to fall in the work maturity skills category. Despite the specificity of the U.S. Department of Labor's definition, service delivery areas (SDAs) teach a variety of competencies, some sounding radically different from others. For example, the Pittsburgh City Service Delivery Area (U.S. General Accounting Office [USGAO] 1987, p. 71) of Pennsylvania lists the work maturity skills portion of its pre-employment/work maturity competencies as following:

- Problem solving
- Personal health/hygiene/grooming/dress
- Team work
- Task completion
- Time Management
- Dependability/reliability
- Advancement
- Cooperation
- Responding to supervision

At the same time, the Shreveport City Service Delivery Area of Louisiana lists only "appropriate work behavior" (USGAO, 1987). Although service delivery areas are permitted to adjust competencies taught to take into consideration client needs and local labor market conditions, the question is, "are the same competencies being taught under different names, or are the competencies different?" Since there are no standards set for competency attainment, it also becomes difficult to measure program success.

When the U.S. General Accounting Office (GAO) checked 582 local job training programs, it found that 91 percent reported having implemented or were developing competency systems as of June 1985. the diversity of these systems was represented by responses to a more detailed questionnaire the GAO sent to 100 of these programs. Of the 87 programs responding, 37 said they provided training in only one competency area, that area being pre-employment/work maturity for 34 of the 37, yet in 8 locations visited by GAO, maximum time spent on preemployment training was generally less than 50 hours, whereas basic education and job-specific training typically required several hundred hours (USGAO 1987, p. 3). Apparently many service delivery areas are teaching work maturity skills, with the form and length of the training differing at different locations.

The problem of defining work maturity skills has been acknowledged for a number of years. Employers, too, have been asked to report what they believe are the competencies falling into the work maturity area that they expect employees to possess. A study by the Educational Testing Service (Gottlieb and Driscoll, 1982) surveyed the attitudes, perceptions, and experiences of employers with low-income youth. Data from 1,496 employers indicated that employers insisted on such entrance criteria as neat personal appearance, but did not measure that skill. The employers were all agreed that youth needed more preparation in work-related attitudes and knowledge of proper behavior on the job. These items were cited more frequently than was the need for improvement in job skills or technical education. Employers also felt that youth lacked an appropriate work ethic and that they had higher job turnover and more lateness and absenteeism than older employers.

The National Center has done extensive research with employers to identify necessary work maturity skills. They found in one study that employers are most inclined to terminate youth who do not follow company rules and policies and who are not making an effort to be productive. Job performance problems related to attitude and basic skills were considered less serious. Employers reported they would be toughest on youth who--

- showed up for work drunk or stoned,
- cheated on their time sheets,
- refused to do a job,
- did not call in when sick,
- did not put forth sufficient effort,
- did not have a good excuse for being late for work (Miguel and Foulk, 1984).

All these problems fall in the category of work maturity skills. To help trainers teach these skills, the National Center has developed *CONNECTIONS*, a resource package, which has an entire set of teaching modules on work maturity skills, including the following:

- *Competency 1*: Present a Positive Image
- *Competency 2*: Exhibit Positive Work Attitudes
- *Competency 3*: Practice Good Work Habits
- *Competency 4*: Practice Ethical Behavior
- *Competency 5*: Communicate Effectively
- *Competency 6*: Accept Responsibility
- *Competency 7*: Cooperate with Others

A 1984 report published by the Florida Employment and Training Association in cooperation with the National Alliance of Business addressed the issue of competency development by suggesting that all localities in Florida develop a youth competencies system that meets local labor market needs and conditions as well as agrees with state decision making on the subject. They list the following factors as influencing the evolution of local job competency systems:

- Policy
- Job training plan instructions
- Governor's coordination and special services plan
- Management information systems, tracking and documentation
- Incentive awards
- Monitoring and review (Spill, 1984, p. 9)

Discussion is provided on each of these topics, as there are complex and important issues that arise under them all.

Florida has also addressed the need to define work maturity competencies by publishing *Youth Employment Competencies: A Resource Manual* (Youth Employment Competencies Task Force 1984). Working with the Governor's Employment and Training Office, the task force prepared a two-volume document that provides instructions for development of local competencies as well as some approaches for measuring a youth's attainment of these competencies. This document divides youth work maturity skills into seven categories:

- Reliability
- Self-management
- Personnel functions
- Supervision
- Task management
- Problem solving

- Motivation (Youth Employment Competencies Task Force 1984, vol. 1,p. 3)

Volume 2 of this work refers to work maturity checklists of other organizations, including the Rock Island Tri-County Consortium of Illinois and the Fulton County Employment and Training, Southern Alleghenies Commission, of Pensylvania. Also included is a sample survey for determining what an employer looks for in terms of an employee's job-keeping skills, as well as a sample pre-employment/work maturity skills competency system, including competency indicators and benchmarks. A resource guide in the appendix of the work refers readers to various assessment instruments that can be used to measure work maturity skills.

The Kansas Task Force on Youth Competency developed a handbook with a similar purpose to that of the Florida work. In *JTPA Youth Employment Competency System: A Model*, 12 competency indicators are listed for the work maturity area, ranging from "demonstrates good attendance and punctuality" to "demonstrates initiative in carrying out work assignment." This type of assessment system is needed to help youth with the transition to work.

National Association of Private Industry Councils developed *Youth Programs and the Job Training Partnership Act--Developing Competency Standards: A Guide for Private Industry Council Members*, which defines pre-employment and work maturity skills as "skills a young person needs to identify career goals; exhibit good behavior and attitudes; and other skills that enable them to find, get and keep a job" (National Association of PICs 1984, p. 8). As sources of work maturity skills competency lists, it suggests the Maine Eleven-County Service Delivery Area, Vermont Department of Employment and Training, the Remediation and Training Institute of Virginia, the Pittsburgh-Allegheny County PIC, and the Birmingham Area PIC of Alabama.

The National Alliance of Business indicated in 1986, in its document titled *Work Maturity Programming for Youth under JTPA*, that it had started a national information exchange in the area of youth employment competencies and encourages others to volunteer to serve in the network. Employment and training professionals from the states of California, Illinois, Minnesota, Missouri, New York, Ohio, and Wisconsin are listed as resource people.

The Center for Employment and Income Studies at Brandeis University (1983) developed a document that introduces the concept of competency-based employment and training as it was envisioned under JTPA. It emphasizes the importance of trainers and local employers working together in the operation of programs. Major issues are covered concerning the design, operation, and management of competency-based programs.

Various other documents have discussed the process of identifying work maturity competencies, have presented actual competency lists resulting from such efforts, and have described the results of implementing programs teaching these competencies (Danzberger and Blank 1985; Geldof et al. 1985; New York State Department of Labor 1986; Werner 1984), but to date, there is no one nationally accepted set of competencies in the category of youth work maturity skills. The Center on Education and Training for Employment has begun to address this issue by looking across the many sets of competency statements as well as drawing on its extensive experience and research on employer attitudes about employee behavior on the job, and identifying the commonalities among them. First, the Center has defined pre-employment skills as those pertaining to "job seeking and finding," and has defined work maturity skills as those pertaining to "job holding and advancing." Having done this, Center researchers have formulated six categories that encompass all competencies mentioned by previous research and competency identification, and still allow a reasonable breakdown into categories. These competency areas are--

- punctuality,
- attendance,
- appearance,
- attitude/behavior,

- interpersonal relations, and
- task completion.

These categories are sufficient to serve as a basis for identification of the individual competencies that fall within them and can then be used as a take-off point for curriculum development, student learning, counseling interface, and program evaluation. More work is yet to be done, but in examining the issue of teaching youth work maturity skills, one thing is clear--employers are saying to the education and training system, "give us youth who show up on time, work all day, dress appropriately, follow directions, complete assigned tasks, get along with others, obey rules, and assume responsibility and we would gladly hire them." Until we can come close to doing that, our nation's youth will continue to get and lose the jobs for which we thought they were trained.

MAINE SURVEY AND INFERENCES

As a preface to presenting impression, interpretations, descriptions, guesses, findings and/or recommendations regarding the work maturity levels of Maine sophomores, a few cautions need to be established. While this study was professionally planned and executed and while the statistical treatment of data is very credible, and while work maturity is being studied from numerous perspectives, we are still dealing with a soft concept and not a hard science. Most attempts at describing maturity, such as work, educational, social, etc., are performed primarily to enable leaders in education, psychology, sociology, counseling, and measurement, to plan, deliver and evaluate interactions and interventions for youth and adults. The purpose of such planning and delivery is to help the client understand those attitudes, values and behaviors that are most preferred and usually provide the highest level of gratification, satisfaction and reward. The reasons one uses caution in collecting, describing, and applying such data, as found in this study, is that

a) there is no exact or perfect maturity level expected for sophomore or any age level, and

b) most of the significant environmental variables that cause and form one's values, attitudes, and behaviors are outside the control of the teacher and counselor.

One's home environment, religious convictions, parent characteristics, significant other influence, health, etc. are very active in forming the individual who then performs at some level of required maturity. Of most importance to the reader is that data collected and presented in this survey are mainly expressions of inexperienced 15 and 16 year olds (88.5%). In essence, what the project provides is an important indicator for a variety of skill and knowledges viewed by the researchers as critical variables of ideal work maturity held by graduating seniors. While this gives the State of Maine a baseline from which to make future survey comparisons, it in no way infers measured performance toward some empirical level of expected skill or knowledge. If the rated research value is that all students--taking into account age, sex, etc.--should value all 22 work maturity factors as extremely high then there are strong inferences for career education program improvement. This researcher would suggest that the context in which this data be used, realizing that no matter how much teaching and counseling high school sophomores receive, they most likely will never rate all items at the 6 or highest level. While it may be an ideal objective on the part of educators, students as a whole (even seniors at the age of 17 or 18) will not rate most/all items at the highest level on the scale. This would also be true if the instrument was a cognitive recall survey, performance or an observational type. The central issue is that high school youth (teenagers) should not be expected to be career mature but in the process of maturity development sufficient for job selection and success.

DATA INTERPRETATION

The work maturity construct in this study is viewed within the context of the following parameters which have been extrapolated from the tables found in the "Data Summary" section of the overall report document to which readers are referred for additional information.

- The sample population is mainly 15 and 16 year olds (88.5%)
- Males and females equally represented (0.3% difference between males and females)
- School achievement (grades) presents an acceptable norm balance
- 66.4% plan some form of post high school work
- 78.4% desire white collar/professional jobs
- Most students have had, and value work prior to their junior year

Figure 1.

Environment	Percent of Male Responses	Rank	Percent of Female Responses	Rank
Realistic	95.05	1	08.42	6
Investigative	64.89	2	35.11	5
Enterprising	45.33	3	54.67	4
Artistic	37.21	4	62.02	3
Conventional	34.44	5	63.33	2
Social	08.86	6	89.87	1

Figure 2.

CDM Environment Rankings for Males and Females

CDM	Male Rank	Female Rank
Crafts	1	5
Science	2	4
The Arts	3	3
Business	4	6
Clerical*	5	2
Social	6	1

*When twice the number of females and males rated this environment it still remained as third priority.

- 60.5% see high school work experience as helpful to work success and 82.7% do not feel work interferes with school performance
- The majority (49.5%) value the family as twice more important than job as desired element of self-fulfillment
- Only 36.6% see part-time work as an important factor in developing career plans
- 90.7% of working students obtained their part-time jobs through direct contact or through parents and friends, and
- Only 9.3% used agencies organized for this purpose
- There are no matches (Figure #1) between the three "most preferred work environments" between males and females.

While totally not unexpected, a special note needs to be made regarding the total disparity between the ranked preferences for work environments between genders. This finding is of critical importance because when genders are combined, as in Appendix D, an entirely different insight is gleaned.

The disparate trend suggested in Figure #1 is continued in studying the results of completing the Harrington/O'Shea CDM environment scales, presented in Figure 2.

While gender data differentiation is not presented, there are other factors that contribute to work maturity responses of sophomores.

The majority (95.2%) rate themselves as equal or superior to their peers in regard to ability, Appendix D. This infers strong self-concept and ego which is a positive self characteristic that can be used in career counseling and planning.

Appendix D suggests most students aspire to lead within the workplace rather than follow. Of particular note is that over a quarter of all sophomores plan to own their own business. This is a very realistic picture because the fastest growing part of the labor force is individually owned small businesses. It could also be inferred that students of this age want strong job definition which could reflect their need for tangibles in life. Through exact definition of role success, parameters are well laid out. This does run somewhat contrary with other reported data such as high ratings on self-employment, professional and white collar jobs which tend not to be defined as blue collar and fellowship type jobs.

Figure 3, when examined closely, provides an interesting comparison.

First there is an excellent match between the sophomore plan for college study. After that there are several immature mismatches. While 19.5 percent are in vocational programs, 12.0 percent are in business courses and 0.5 percent are in cooperative courses (total 32.0 %). Only 1.2 percent plan to enter apprenticeships, 6.2 percent vocational education, and 8.1 percent plan to enter the workforce directly (total 15.5 %). Given the postsecondary and vocational education matches, it leaves 37.6 percent of current sophomores who seem to be unsure of their employment future while only 19.5 percent are in the general or other type programs. While this may be insignificant, it does show a lack of firm or planned direction for post high school plans.

Lastly, sophomores show some unique question about their future in Maine as shown in Figure #4.

In essence, approximately half of the sophomores do not see promise for work life, postsecondary education, or career fulfillment in their home state or within their current home area. These impressions may be formed due to current employment factors in the state or mere fantasy projecting on their part. There are contradictions within the data, such as:

- While 45 percent project living in Maine at age 30 only 24 percent believe they will not meet their career plans there.
- While 34 percent feel they will meet career plans within 50 miles from home, and while 65 percent would not compromise their career plans to live within 50 miles from home, 52 percent suggest their career needs will be met in Maine.

Figure 3.

Student Program of Study and Student Indication of Post-High Plans

Program of Study	Percent
College	48.1
Vocational	19.5
General	16.9
Business	12.0
Other	2.6
Co-op Education	0.5

Post-High Plans	Percent
2/4-Year College	46.9
Unknown	16.1
Armed Forces	13.1
Work Force	8.1
Vocational Education	6.2

Figure 4.

Future Projections of Maine Sophomores

	Yes	No	Don't Know
Live in Maine at age 30	45.1	54.9	00.0
Attend postsecondary school in Maine	45.6	23.0	31.4
Meet career plans within 50 mile radius of home town	34.3	45.6	2-.2
Will meet career plans in Maine	51.9	23.8	24.3
Would compromise career plans to live within 50 miles of home town.	34.6	65.4	00.0

Figure 5.

Value of Competencies by Selected Program of Study

	College Bound			Voc/Business			Other		
	H	M	L	H	M	L	H	M	L
Dependability and Reliability	00	350	35	00	200	40	00	140	40
Communication Skills	70	270	30	30	165	55	20	120	40
Personal Relations	65	260	25	35	150	65	20	120	50
Initiative/Productivity	70	250	30	25	160	50	30	120	40
Worker Rights	60	250	40	40	155	45	25	110	50
	N = 250			N = 236			N = 142		

Work Maturity Integration Competencies

Work maturity was measured mainly through data collected from twenty-two questions across five concept areas: rather than measuring knowledge, aptitude, or attitude towards items important to work maturity, students were asked opinions or to project into the future. Specifically, they rated each item, on a six-point scale, in terms of its perceived importance as a skill or knowledge necessary for successful adult living that is acquired prior to graduation from high school.

When looking directly at the broad competency area within a simple rating of high, medium, or low value, some interesting insights within and between student groups occur. A strong attempt was made to identify trends within college bound, vocational bound, and other general/undetermined groupings, as depicted in Figure 4.

It appears that well over 70 percent of all respondents in all five competency areas rated themselves at the medium value level. This is interesting in itself without further study, but again may merely reflect immature values on the part of immature teenagers. A few additional points if interest are illuminated in Figure 5.

Several minor inferences gleaned from Figure 6 are as follows:

- Five percent more college students value competencies at the high level than those from vocational areas.
- Twenty percent more of the other category students rate the competencies at a lower level than college students.

While one could do an item analysis by gender, by career plans, by educational type, etc., it does not seem to provide any additional insight on the work maturity for Maine sophomores. Where an item analysis would be important is career education material and method selection.

Figure 6.

Percentage Values on all Five Competency Areas

Program of Study	High	Medium	Low
College	15%	65%	10%
Vocational Education	10%	72%	18%
Other	13%	86%	30%

NOTE: Percentages do not equal 100% due to some minor errors in data interpretation.

Conclusions

Maine sophomores value the opportunity to work but do not see work as a valuable element in developing a career plan. 64% of the sophomores plan to attend post-secondary training or educational institutions. A great majority aspire to professional or white collar jobs. They value the family and depend upon their, friends, self, and family to obtain jobs. Males differ greatly from females on the CDM environment scales which show traditional sex bias values. Most students exhibit a good self-concept and aspire to lead, not follow, in their work life.

The real value of these data are as follows:

- 1. Provides baseline for future student evaluation and research.
- 2. Provides educators with inferences for career education delivery change.
- 3. Begins to build instrumentation that collects actual career maturity data on students at different times in their junior and senior high school levels.

Recommendations

The following recommendations are made in context to the purposes set forth in the Maine Employability and Work/Family Integration Survey of 1987. They are offered within the six short-term goals set forth as follows:

- 1. *Prepare a baseline set of data for use within a continuing career development study.*

This study indeed compiled an interesting set of work maturity-type data. It will help educators track values and impressions of Maine's sophomores.

Nonetheless, this data is insufficient to determine work maturity growth over time. Added to the survey would need to be other measures that determine status change in the areas of cognitive, and value behavioral domains. There are several nationally normed work maturity instruments available that would fit well into this study.

- 2. *Additional insights for education planners, state planners and university personnel to develop strategies to achieve excellence in career guidance delivery in Maine, kindergarten through adult education.*

Very careful thought needs to be given regarding this goal. Except for gender stereotype choices and confusion about one's career and educational choice, there are few concretes from which to develop here. It is recommended that Maine policy makers study the expert review of the study and convene a blue ribbon panel for public discussion. This panel could advise, identify additional data and data analysis needed, and conclude with a future action plan. This is true mainly because only one expert per area was used which makes this advice very weak.

mainly because only one expert per area was used which makes this advice very weak.

- 3. *Provide local education agency personnel with individual student data to assist counselors in their work with students.*

The same cautions are offered here that were offered above in item two. At this same point, it is difficult to see how much of this data would give a local school; specific information to expand, enrich, or change one's career guidance/education program. Again, it would be advised that regional or local committees or educators, employers, and students be formed to examine and discuss their local data and make program change recommendations.

- 4. *Evaluate the instrumentation for replication with other school systems.*

It appears as if the Maine career survey needs to be examined in terms of such factors as: (a) time, (b) importance, (c) usefulness, and (c) credibility. The survey is very extensive and time consuming and a group of local representatives should advise as to what is needed, desired, and useful. It is suspected that schools will adopt various portions of the overall survey if not the whole package.

- 5. *Utilize findings to recommend specific curriculum activities for students with similar profiles.*

It is suggested that if work maturity is defined in Maine by twenty-two questions across five work maturity competency areas then they should drive curriculum change. Additionally, it is expected that one would like all students to rate all twenty-two questions at the highest level at some point in time.

Once educators determine what the acceptable mean might be for sophomores then curriculum could be developed to generate these values initially then annually until graduation. Exact competencies should be developed for each activity at each grade level so that actual maturity can be measured over time.

- 6. *Give information to parents in order that they might become more effective advocates for the career development and aspirations of their children.*

It is recommended that a very short popular version of this study be developed and distributed through parent-teacher organizations, school boards, etc. What the state needs from parents is their understanding of the importance of youth career development and related school programs. Additional attempts should be made to translate the findings into recommended activities they can implement at home around the twenty-two items.

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Job Seeking Skills: Preparing Youth for Change

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Work

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JOB SEEKING SKILLS:
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Hoyt (1984) stated there exists a great need to equip today's youth with a set of general employability/adaptability/promotability skills that enables them to cope with the "certainty of uncertainty" brought about by the rapidity of changes in occupations. This is one of the major broad-based goals of career education. Schools need to prepare youth for a world of occupations that will be quite different from that existing in the current decade. Technological change makes it impossible to give youth the specific occupational skills that will be required in the future. What we can do is teach them general employability skills certain to be useful in the future? One of these sets of skills is the "job getting" cluster of the Maine Employment Competencies System Model. The job getting competency area requires job seeking, completion of resumes and applications accurately, use of contact skills and interviewing. The learner outcomes of interest are job seeking/finding/getting/holding skills. Mastery of these skills indicates a student knows how to job search, interview, and obtain employment.

Review of the Literature

Latham (1987) stated that the psychology of the job search process remains one of the most important areas in the employment process that has not been researched. The process of seeking employment is particularly relevant to three focal populations; job seekers, potential employers, and counselors. From the job seekers' perspective, information about job searching helps to prepare for the job hunt. Employers can use data in the job search attitudes and behaviors of potential applicants to (a) target their potential applicants and where they search for jobs, and (b) construct recruitment appeals that highlight the applicants' major job values (Stoops, 1982). Finally, an understanding of job getting competencies enables counselors to help clients use data in career planning and to train them in job seeking (Hamilton, 1984).

Youth need to understand the importance of careers, have knowledge about occupations and training programs, and make good career decisions. Lack of career knowledge among youth, particularly disadvantaged youth, contributes to poor work attitudes and job hopping and affects long-term earnings.

It was well documented by the *National Assessment of Educational Progress, Career and Occupational Development Assessment* that seventeen-year-olds completing high school programs lacked basic employment seeking skills (Mitchell, 1977). For example, when presented with a help-wanted ad the youth were asked to write a letter of application. Most of the respondents handled only three of the mechanical parts of the letter correctly (greeting, closing, signature), with fewer than one-third giving other mechanical parts correctly (date, return address, inside address). Analysis of the content was disappointing in that fewer than half gave their education and training qualifications.

Job seeking skills are basic life skills. A Gallup Poll conducted in November 1987 found that in the year prior to the interview, 10% of the adults surveyed said that they had need for help in selecting, changing or obtaining jobs. This figure projects to approximately 18 million Americans. This instability is caused in part by the rapid turnover and change of industries and firms. The result is a changing culture of American workers, with many workers changing jobs five or six times during their work life (U.S. Department of Labor 1987).

The Carl D. Perkins Vocational Education Act (P.L. 98-524) (U.S. Congress, 1984) mandates that career guidance and counseling programs shall be designed to assist individuals to develop mid career job search skills and to clarify career goals. Therefore job seeking skills are needed throughout the life span.

Keeping The Options Open (College Entrance Examination Board, 1986) recognized the societal and personal barriers youth face when leaving high school. Students, especially those from families and communities in which few people attend college or a significant number are unemployed, may not know how to think carefully about or plan for their lives after high school. The report emphasized a key problem for these students is the absence of a network of adults or peers with firsthand experience and contacts in the college, business, and professional worlds.

It is said that job getting is more of an art than a skill. Youth especially need to explore creative ways for procuring work. *Workforce 2000* (1987) stated that due to downsizing of large corporations, the typical workplace will be smaller and most new jobs will be in small business. This concentration of new jobs in small business establishments will make the job seeking process more complex.

According to the members of Commission VI of the American College Personnel Association (1987), students are often convinced in their job-search to think "that bigger is better, and seek positions only with large, well-known organizations" (p. 46). Gallup (1988) reported on a *Gallup Youth Survey* that 31% of teens say they would prefer to work for a private firm or in professional practice. About the same proportion (28%) would prefer a large company as their place of employment, and about half as many would like to work for a small firm (15%). We must help students understand that small businesses are the employers of the future and teach them how to find employment opportunities in small business.

The most difficult challenge students face is that of simply locating employers who are interested in hiring individuals with their background. Bjorkquist (1987), in a survey of recruiters whose companies hire liberal arts college graduates, found employers identified direct contact and third-person referral as the two most popular techniques. The employers were relatively unanimous in preferring that a cover letter and resume serve as the first contact, followed by a brief telephone call. These results for liberal arts graduates need to be tested for other populations.

Yates (1987) reported on a survey conducted to determine the content for the *Job Hunter's Guide*. High school seniors in a rural high school in Texas rank ordered the following items as most important: 1) How to write a resume; 2) What to expect on a typical interview; 3) Steps involved in making a career or occupational decision; 4) Average salaries for specific occupations; and 5) Budgeting your money until you find a job. The results of this study indicated that self-assessment and career decision-making skills, job-hunting knowledge, and job-hunting skills are considered most important to job hunters during the job search process.

Stevens (1986) observed that how one mobilizes his or her personal resources for coping with the job market is an internal factor. It reflects the individual's personality and self-concept development and is an important factor influencing why some people succeed in obtaining a job and why some do not. The style of individuals who readily find jobs is characterized by specific and self-actualized behavior. They take advantage of opportunities to learn from their mistakes, explore and test new situations and make decisions.

Definition of Competency Area

Job Seeking - Identify job opportunities

Individuals find their jobs in a variety of ways. Job seeking requires the individuals to be energetic and creative. There are many resources including direct employer applications, friends and relatives, neighbors, newspapers, State Employment Service, private agencies, school placement and personnel, community service organizations, professional organizations, personnel departments of private companies and labor unions.

Resumes and Applications - Complete an application and a resume

A resume is an individually designed summary (usually one page) of vocational, work experience and personnel qualifications intended to demonstrate fitness for a particular position or type of position. A resume can follow different formats; e.g., functional or chronological. When an individual applies for a job, most employers require the completion of a job application. This application is a written record of information about the applicant.

Contact skills - Contact employers by phone, letter, or in person.

Phone calls are important for initial contacts and follow-up. When using the phone it is important to speak clearly and with assurance. Sending a cover letter with a resume or a letter of application allows an individual to highlight experience relevant to a specific position and reasons why the organization should need or want the individual.

Personal contact and informality characterized most contacts made by job seekers (U.S. Department of Labor, 1974). Eighty percent of all job finders went directly to employers rather than working through the Employment Service or another agency.

Sarti (1987) conducted a study that included 1,000 companies located in five northeastern cities. The number of employees in these companies ranged from 25 to 1,000. Sarti asked the employers how they advertised their openings. Respondents to this survey indicated that the methods used were:

- classified ads (90%)
- private employment agencies (67%)
- personal referrals (62%)
- unsolicited applications received (28%)
- college placement offices (21%).

Interviewing - Schedule, prepare for, complete, and evaluate an interview.

An interview is simply a process intended to find a good match between a job seeker and a job opportunity. The objectives in an interview for any job seeker are: 1) to gather enough accurate information about the job to help make a decision about it; 2) to talk with the person who has the authority to hire; and 3) to provide information about self, qualifications and interest in the job.

When a contact results in an interview the applicant must arrive prepared and on time. The applicant should find out the name of the interviewer and the office where the interview will occur. The applicant should bring a resume if one was not sent ahead. The applicant should present a positive appearance and reflect the dress requirement for the job.

Public School Intervention

Most of the literature on job seeking skills is related to the postsecondary and adult populations. However, as more states and K-12 systems begin implementing comprehensive career development programs, job seeking skills will more commonly be taught at the high school level. Many high school programs only deal with job seeking skills under the broad area of "preparation for work." When outcomes related to job seeking are delineated they include: a) apply search skills for an employment interview; b) apply skills in seeking employment; and c) use job search skills (Iowa Department of Education, 1986).

Another common vehicle for teaching job-seeking skills, particularly resume development, is computerized career information systems. There are several software packages that allow youth to practice job seeking skills (e.g., Tips for Successful Employment and Living).

One school district that does include specific objectives in their comprehensive guidance program is the Marana Unified School District in Marana, Arizona. At the high school level the following student objectives are introduced, reviewed and evaluated:

a) Complete a job application and a resume in an acceptable manner.

b) Distinguish the positive and negative points in the job interview.

These objectives are achieved through a variety of activities, for example, group counseling, classroom guidance, sample forms, overhead projector presentations, role playing using job interview scripts, and video tape mock job interviews and critique.

The National Career Development Guidelines (NOICC, 1988) include several competencies and numerous indicators at the high school level related to career development. One competency is: Skills for preparing, locating, obtaining, maintaining and advancing in a job. The indicators for this competency are:

- 1. Demonstrate the ability to locate, interpret and use information about job openings and opportunities.
- 2. Demonstrate educational and vocational skills required for a full or part- time job.
- 3. Demonstrate skills and behaviors necessary for a successful job interview.
- 4. Develop skills in preparing correctly a resume and complete a job application.
- 5. Identify employers for specific occupations and job openings.

- 6. Demonstrate employability skills necessary for entry into the labor market.
- 7. Develop skills to assess occupational and career opportunities in terms of working conditions, benefits and opportunities for advancement.
- 8. Use placement services to make a successful transition from high school to civilian employment, entry into the armed services, or postsecondary education/training leading to the attainment of individual career goals.
- 9. Demonstrate an understanding that job opportunities often require relocation to another city or state.
- 10. Develop skills necessary to function in life as a consumer and to manage one's personal finances.

The National Career Development Guidelines recommend components that provide the structure for a comprehensive career guidance program. The guidelines contain a process to use student competencies to develop state and local standards. The guidelines should be viewed as examples and suggestions that are consistent with the accepted definition of a comprehensive career guidance and counseling program.

Miller (1987) described the general characteristics of the secondary school student and suggested programmatic activities and strategies counselors can use to assist students with occupational decision making. Nishimoto (1985) developed a lesson plan designed for use in a 50-minute class to teach prospective college graduates to complete applications forms. The lesson is part of a workshop on job search strategies.

Other Settings

The Private Industry Council and the State of Mississippi (1987) delineated Job Search as one of six modules in its *System of Youth Competencies*. This curriculum presents a hierarchy of key learning outcomes, which have, as their foundation, enabling objectives. Suggested instructional strategies and resources accompany each outcome. For example a key learning outcome is, "participants will be able to outline the elements of a job search into a job search plan." The enabling objectives are:

1) The participant will be able to list the elements of a job search.

2) The participant will be able to sequence these elements.

The curriculum also provides four suggested instructional strategies including, "Have participants develop a job search flow chart." The resources for this outcome include two filmstrip/cassettes.

Adkins (1984) described a packaged curriculum called the *Employability Skills Series* for educationally disadvantaged and underprepared adults and youth, a ten-unit program which deals with the psychosocial problems of choosing, finding, getting and holding a job and preparing for a career. The program has been used in 35 states, in a variety of settings including high schools, Adult Basic Education, and vocational/technical schools.

Delivery patterns vary considerably from institution to institution. The recommended pattern is to deliver the *Employability Skills Program* in two, two-hour blocks each week for several successive weeks. Another pattern is to try to fit the program into a 50-minute hour once a week. This kind of spaced learning interspersed with other life and educational activities has been shown to facilitate lasting acquisition and incorporation of new attitudes and behaviors.

Goodman (1984) developed a leader guide to assist employability skills trainers in helping their students or clients find jobs. This material was developed for the Continuum Center for Women. Many excellent materials have been developed to assist JTPA clients and displaced homemakers. Recently materials have been developed for refugees who use English as a second language.

These interventions reflect the need for a commitment to comprehensive career development as part of the overall guidance and counseling program which must be an integral part of the total educational program, kindergarten through adult. Like all career development competencies, job seeking skills should be introduced in a logical developmental sequence. For example, students in the middle school do not need to know how to write a resume but students nearing the completion of education or training programs must be able to write an effective resume. Middle school is an appropriate time to begin teaching students interviewing skills (e.g., interview a person in an occupation of interest), but specific practice for job interviews should occur later when it has a high saliency for the learner. The best way to ensure competencies are taught in a logical developmental sequence is to develop a scope and sequence scheme and a guidance curriculum.

Many of these materials and programs may provide useful ideas to apply in the high school; however, the teacher or counselor must keep in mind the need for the information and skill. Unemployed and underemployed adults feel a critical need for job hunting knowledge and skills, whereas high school students may only feel such a urgency if they are seeking part-time employment and are approaching the time when they will permanently leave school. Again, this supports the need for a written guidance curriculum kindergarten through adult.

Another body of literature that may be relevant is that designed to smooth the transition of rural students to finding employment and adjusting to urban areas (Vaughn & Vaughn, 1985; ERIC, 1986). The materials cover practical steps in getting a job, including how to find openings, complete applications, prepare resumes, and cope with interviews.

Finally, excellent materials and training packages have been developed by vocational rehabilitation counselors related to job seeking. Dusenberry (1980) compiled a training guide for persons who need to acquire skills in job seeking. The resource covers work importance, self-concept, communication, personal appearance, job application, job interview, supervision, and coworkers. This type of material is valuable for students who are planning to go directly to the job market and have had little successful work experience and/or who need skills in seeking employment.

Methods

754 Maine Sophomore students, from eight schools, were surveyed in 1987 by the Maine Occupational Information Coordinating Committee. 607 respondents also gave self-reported Holland Codes and responded to the *Harrington O'Shea Career Decision Making System* (CDM).

Results

Students were asked to rate each item in terms of its importance as a skill or knowledge necessary for successful adult living that is acquired prior to graduation from high school. The students rated each item in regard to level of importance on a scale from (1) of little importance to (6) of a great deal of importance.

The data analysis utilized both descriptive and inferential statistics. The data was analyzed using frequency distributions and correlational analysis. Means and standard deviations were calculated for the job seeking items that are included in the composite.

The five items on job seeking skills were interspersed throughout Part II of the student survey. Table 1 is a description of the importance respondents placed on various job seeking/getting skills. Presented in Table 1 are the means, standard deviations, and percent of students who gave a response indicating a high importance toward the skill. For all items in the composite, more that 57% of the sample gave a response recognizing the importance of job seeking skills [i.e., great deal of importance (6) and highly important (5)]. The total mean score for the competency variable representing all job seeking items was 23.68. The standard deviation was 5.13.

Table 2 provides further breakout of the responses for each item in the composite. All of the items received a high ranking. The overall results have shown that, the value levels of job seeking skills by gender are very similar. The value is assigned as--high (5&6), medium (3&4), or low (1&2) importance.

More females than males assigned high importance to the composite.

Table 1

Means and Standard Deviations for Job Seeking Composite Score and Individual Items

Composite and Item	M	SD	High Value
Locate job opportunities	4.56	1.472	57.5
Contact prospective employers	4.85	1.380	69.1
Effective job interview	4.75	1.373	66.0
Complete job application	4.77	1.456	67.2
Write effective resume	4.74	1.439	67.2
Job seeking composite score	23.68	5.130	

Table 2

Responses to Job Seeking Subscale Items: Individual Items and Composite

Number, Statement, and Response Options by Percent						
0	1	2	3	4	5	6
3. Locate job opportunities						
0.8	4.5	5.4	9.2	22.5	22.1	35.4
13. Contact a prospective employer and make a favorable first impression						
0.4	3.4	4.8	7.3	15.4	5.5	43.6
22. Prepare for and participate in a job interview						
0.4	3.7	3.7	9.2	17.1	25.6	41.6
41. Complete a job application						
0.4	6.4	2.4	6.1	17.5	25.6	41.6
46. Write an effective resume						
0.7	2.8	4.8	9.4	14.2	26.7	40.5

Tables 3 and 4 provide the full range of percent for each item in the composite for females and males.

Table 3

Job Seeking Skills by Response Options for Females

	Responses in Percent						
Item	0	1	2	3	4	5	6
3	0.80	4.52	4.79	10.37	18.62	25.00	35.90
13	0.00	3.72	5.32	7.18	13.83	26.96	43.09
22	0.00	2.66	3.19	9.04	12.50	30.05	42.55
41	0.27	6.12	1.33	5.59	17.55	25.27	43.88
46	0.53	3.46	4.52	7.71	13.30	25.80	44.68

Table 4

Job Seeking Skills by Response Option for Males

			Responses in Percent				
Item	0	1	2	3	4	5	6
3	0.81	5.57	5.91	9.06	26.08	19.35	35.22
13	0.00	3.23	4.30	6.99	17.20	24.19	44.09
22	0.81	4.84	4.30	9.14	22.04	25.27	33.60
41	0.54	6.72	3.23	6.18	17.74	25.81	39.78
46	0.81	4.30	4.84	11.02	15.32	27.69	36.02

Tables 5 and 6 provide the crosstabs of the composite by programs, controlling for gender. Programs were grouped high, medium, or low for each competency. This was determined by 1 standard deviation either side of the mean to form these 3 groups. Females rated the competency higher than males.

Table 5

Job Seeking Competency Subgroupings of Males by Program of Study in Percent

Program of Study	High	Low	Middle
Unreported	0.80	0.27	0.65
Business	1.34	5.65	12.37
College	3.49	3.76	18.82
Cooperative Education	0.54	1.34	3.76
General	7.80	2.96	31.18
Other	0.27	0.27	0.00
Vocational Education	0.27	1.34	2.15

Table 6

Job Seeking Competency Subgroupings of Females by Program of Study in Percent

Program of Study	High	Low	Middle
Unreported	0.53	1.33	2.39
Business	2.13	2.66	8.51
College	1.60	2.93	7.71
Cooperative Education	2.93	2.93	11.70
General	11.70	2.66	36.44
Other	0.27	0.00	0.27
Vocational Education	0.27	0.53	0.53

Tables 7-11 present the percent of students as they ranked the items in the composite by Program of Study. All of the items were consistently assigned high level of importance.

Table 7

Responses to Item 3 "Locate job opportunities" by Program of Study

Response Option			(Table Percent and Column Percent)			
	Business	College	Coop Ed	General	Other	Voc Ed
0	0.27	0.55	0.00	0.00	0.00	0.00
	2.30	1.14	0.00	0.00	0.00	0.00
1	0.82	1.10	0.00	0.82	0.55	1.10
	6.90	2.29	0.00	4.88	21.05	5.52
2	1.24	1.79	0.00	1.51	0.14	0.96
	10.34	3.71	0.00	8.94	5.26	4.83
3	1.51	3.43	0.14	1.79	0.55	1.65
	12.64	7.14	25.00	10.59	21.05	8.28
4	1.24	10.99	0.14	3.85	0.55	5.77
	10.34	22.86	25.00	22.76	21.05	29.97
5	2.47	12.09	0.00	3.85	0.14	3.85
	20.69	25.14	0.00	22.76	5.26	19.31
6	4.40	8.13	0.27	5.08	0.69	6.59
	36.78	37.71	50.00	30.08	26.32	33.10
TOTAL						
	87	350	4	123	19	145
%	11.95	48.08	0.55	16.90	2.61	19.92

Table 8

Responses to Item 13 "Contact an employer and make a favorable first impression" by Program of Study

Response Option	(Table Percent and Column Percent) Business	College	Coop Ed	General	Other	Voc Ed
1	1.10	0.82	0.00	0.69	0.14	0.55
	9.20	1.71	0.00	4.07	5.26	2.76
2	0.41	1.65	0.00	1.51	0.00	1.10
	3.45	3.43	0.00	8.94	0.00	5.52
3	0.96	1.79	0.14	2.20	0.27	1.92
	8.05	3.71	25.00	13.01	10.53	9.66
4	2.72	6.18	0.00	2.75	0.69	2.75
	22.99	12.86	0.00	16.26	26.32	13.79
5	2.20	13.60	0.14	4.40	0.41	5.22
	14.39	29.29	25.00	26.02	15.79	26.21
6	4.53	24.04	0.27	5.36	1.10	8.38
	9.99	50.00	50.00	31.91	42.11	42.00
TOTAL						
	87	350	4	123	19	145
%	11.95	48.08	0.55	16.90	2.61	19.92

Table 9

Responses to Item 22 "Prepare for and participate in a job interview" by Program of Study

Response Option	Business	College	Coop Ed	General	Other	Voc Ed
		(Table Percent and Column Percent)				
0	0.00	0.14	0.00	0.14	0.00	0.14
	0.00	0.29	0.00	0.81	0.00	0.69
1	0.82	0.65	0.00	0.69	0.00	0.10
	6.90	1.43	0.00	4.07	0.00	5.52
2	0.27	1.10	0.00	1.10	0.27	0.96
	2.30	2.29	0.00	6.50	10.53	4.83
3	1.24	3.50	0.14	2.61	0.41	1.65
	10.34	6.86	25.00	15.45	15.79	8.28
4	1.37	8.24	0.00	3.57	0.69	3.16
	11.49	17.14	0.000	21.14	26.32	15.86
5	2.16	15.52	0.27	3.71	0.41	5.49
	21.94	32.29	50.00	21.95	15.79	27.59
6	5.63	19.09	0.14	5.00	0.87	7.42
	47.13	39.71	25.00	30.08	31.58	37.24
TOTAL						
	87	350	4	123	19	145
%	11.95	48.08	0.55	16.90	2.61	19.92

Table 10

Responses to Item 41 "Complete a job application" by Program of Study

(Table Percent and and Column Percent)

Response Option	Business	College	Coop Ed	General	Other	Voc Ed
0	0.14	0.00	0.00	0.00	0.00	0.14
	1.15	0.29	0.00	0.00	0.00	0.49
1	1.65	1.24	0.00	1.24	0.27	1.79
	13.79	2.57	0.00	7.32	10.53	8.97
2	0.00	1.10	0.00	0.96	0.14	6.27
	0.00	2.20	0.00	5.69	5.26	1.38
3	0.69	2.47	0.14	1.24	0.14	1.37
	5.75	5.14	25.00	7.32	5.26	6.90
4	1.79	7.97	0.00	3.71	0.87	2.98
	14.94	16.57	0.00	21.95	31.58	14.48
5	2.75	13.87	0.14	3.43	0.55	5.36
	22.99	29.86	25.00	20.33	21.05	26.90
6	4.95	21.29	0.27	6.32	0.69	1.10
	41.48	44.29	50.00	37.40	26.32	40.60
TOTAL						
	87	350	4	123	19	145
%	11.95	48.08	0.55	16.90	2.61	19.92

Table 11

Responses to Item 46 "Write an effective resume" by Program of Study

Response Option		(Table Percent and Column Percent)				
	Business	College	Coop Ed	General	Other	Voc Ed
0	0.14	0.14	0.00	0.00	0.14	0.27
	1.15	0.29	0.00	0.00	5.26	1.38
1	0.55	0.55	0.00	1.51	0.14	0.96
	4.60	1.14	0.00	8.94	5.26	4.83
2	0.55	1.37	0.00	1.10	0.14	1.37
	4.60	2.86	0.00	6.50	5.26	6.90
3	1.10	2.20	0.14	2.88	0.27	2.89
	9.20	4.57	25.00	17.07	10.53	14.48
4	2.06	5.63	0.00	3.30	0.27	3.02
	17.24	11.71	0.00	19.51	12.53	15.17
5	2.75	12.36	2.14	4.95	0.96	5.77
	22.99	25.71	25.00	29.27	36.84	28.97
6	4.81	25.82	0.27	3.16	0.69	5.65
	10.23	53.71	50.00	18.70	26.32	28.28
TOTAL						
	87	350	4	123	19	145
%	11.95	48.08	0.55	16.90	2.61	19.92

Tables 12 and 13 provide the crosstabs of the composite by grades, controlling for gender. Again, females at all levels of academic performance rated the competency higher than males.

Table 12

Job Seeking Competency Subgrouping of Males by Reported Grade Point Average in Percent

Subgroup	Blank	"A"	"B"	"C"	"C/D"
High	0.54	1.88	3.91	4.30	1.88
Low	0.27	0.00	3.49	8.06	3.76
Middle	2.69	6.18	25.81	25.27	9.95

Table 13

Job Seeking Competency Subgrouping of Females by Reported Grade Point Average in Percent

Subgroup	Blank	"A"	"B"	"C"	"C/D"
High	0.80	2.39	7.31	4.26	2.66
Low	1.60	0.27	3.72	5.05	2.39
Middle	2.13	6.65	30.59	21.81	6.38

Tables 14-18 present the percent of students as they ranked the items in the composite by Grade Point Average. "A" students were more likely to assign the highest level of importance to all the items.

Table 14

Responses to Item 3 "Locate job opportunities" by Grade Point Average

Response Option	(Table Percent and Column Percent)				
	"A"	"B"	"C"	"C/D	TOTAL
0	0.00	0.41	0.41	0.00	0.83
	0.00	1.01	1.15	0.00	
1	0.00	1.10	2.35	0.97	4.42
	0.00	2.69	6.54	6.86	
2	0.28	1.38	2.62	1.24	5.52
	3.08	3.37	7.31	8.82	
3	0.14	3.45	4.14	1.66	9.39
	1.54	8.42	11.54	11.76	
4	2.49	8.15	9.12	3.18	22.93
	27.69	19.87	25.38	22.55	
5	2.49	10.22	7.04	1.93	21.69
	27.69	24.92	19.62	13.73	
6	3.59	16.30	10.22	5.11	35.22
	40.00	39.73	28.46	36.27	
TOTAL					
	65	297	260	102	724
%	8.98	41.02	35.91	14.09	100.00

Table 15

Response to Item 13 "Contact a prospective employer and make a favorable first impression" by Grade Point Average

Response Option	(Table Percent and Column Percent)				
	"A"	"B"	"C"	"C/D"	TOTAL
1	0.14	0.83	1.38	0.83	3.18
	1.54	2.02	3.85	5.88	
2	0.28	1.24	2.21	1.10	4.83
	3.08	3.03	6.15	7.84	
3	0.00	2.07	4.14	1.24	7.46
	0.00	5.05	11.54	8.82	
4	1.66	5.66	5.52	2.49	15.33
	18.46	13.80	15.38	17.65	
5	2.76	10.64	8.56	3.73	25.69
	30.77	25.93	23.85	26.47	
6	4.14	20.58	14.09	4.70	43.51
	46.15	50.17	39.23	33.33	
TOTAL					
	65	297	260	102	724
%	8.98	41.02	35.91	14.09	100.00

Table 16

Response to Item 22 "Prepare for and participate in a job interview" by Grade Point Average

Response Option	(Table Percent and Column Percent) "A"	"B"	"C"	"C/D"	TOTAL
0	0.00	0.14	0.00	0.28	0.41
	0.00	0.34	0.00	1.96	
1	0.00	0.83	1.80	0.69	
	0.00	2.02	5.00	4.90	
2	0.28	0.69	1.66	1.10	3.73
	3.08	1.68	4.62	7.84	
3	0.28	3.18	4.56	1.38	9.39
	3.08	7.74	12.69	9.80	
4	1.24	6.22	6.63	2.76	16.85
	13.85	15.15	18.46	19.61	
5	3.31	12.98	9.12	2.35	27.76
	36.92	31.65	25.38	16.67	
6	3.87	16.99	12.15	5.52	38.54
	43.08	41.41	33.85	39.22	
TOTAL					
	65	297	260	102	724
%	8.98	41.02	35.91	14.09	100.00

Table 17

Response to Item 41 "Complete a job application" by Grade Point Average

Response Option	(Table Percent and Column Percent) "A"	"B"	"C"	"C/D"	TOTAL
0	0.00	0.28	0.14	0.00	0.41
	0.00	0.67	0.38	0.00	
1	0.00	1.66	3.18	1.10	5.94
	0.00	2.04	8.85	7.84	
2	0.28	0.69	1.10	0.41	2.49
	3.08	1.68	3.08	2.94	
3	0.69	1.93	2.62	0.69	5.94
	7.69	4.71	7.31	4.90	
4	1.24	6.35	7.04	2.90	17.54
	13.85	15.49	19.62	20.59	
5	2.21	12.29	8.43	2.62	25.55
	24.62	29.97	32.46	18.63	
6	4.56	17.82	13.40	6.35	42.13
	50.77	43.43	37.31	45.10	
TOTAL					
	65	297	260	102	724
%	8.98	41.02	35.91	14.09	100.00

Table 18

Response to Item 46 "Write an effective resume" by Grade Point Average

Response Option	(Table Percent and Column Percent)				
	"A"	"B"	"C"	"C/D"	TOTAL
0	0.00	0.14	0.41	0.14	0.69
	0.00	0.34	1.15	0.98	
1	0.00	0.83	1.93	0.97	3.73
	0.00	2.02	5.38	6.86	
2	0.14	1.93	1.93	0.69	4.70
	1.54	4.71	5.38	4.90	
3	0.14	2.21	5.11	1.93	9.39
	1.54	5.39	14.23	13.73	
4	0.41	4.97	6.08	2.49	13.95
	4.62	12.12	16.92	17.65	
5	3.04	11.74	7.46	4.56	26.80
	33.85	28.62	20.77	32.35	
6	5.25	19.20	12.98	3.31	40.75
	58.46	46.80	36.15	23.53	
TOTAL					
	65	297	260	102	724
%	8.98	41.02	35.91	14.09	100.00

Tables 19-23 present the percent of students as they ranked the items in the composite by school. The rankings were very consistent across schools.

Table 19

Responses to Item 3 "Locate job opportunities" by School in Row Percent

School	Response Option 0	1	2	3	4	5	6
Bethel	0.00	0.30	5.19	5.19	24.68	25.68	38.96
Bingham	0.00	0.00	4.35	8.70	21.74	17.39	47.83
East Corinth	1.11	6.67	5.56	14.44	18.89	14.44	38.89
Eastport	0.00	10.64	6.38	12.77	14.89	19.15	36.17
Howland	0.00	8.97	3.85	5.13	28.21	19.23	34.62
Lincoln	0.95	2.86	2.86	6.67	24.76	20.00	41.90
South Portland	1.22	2.45	6.53	10.61	23.27	26.53	29.39
West Sullivan	1.12	6.74	6.74	7.87	19.10	23.60	43.83

Table 20

Response to Item 13 "Contact prospective employer and make a favorable first impression" by School in Row Percent

School	Response Option 0	1	2	3	4	5	6
Bethel	0.00	2.60	5.19	2.60	14.29	28.57	46.75
Bingham	0.00	0.00	0.00	4.35	13.04	17.39	65.22
East Corinth	0.00	5.56	0.00	6.67	15.56	27.78	44.44
Eastport	0.00	6.38	8.51	17.02	10.64	17.02	40.43
Howland	0.00	2.56	5.13	5.13	10.26	33.33	43.59
Lincoln	0.00	1.90	3.18	9.52	14.29	17.14	53.33
South Portland	0.00	1.63	4.90	8.57	17.14	26.94	40.82
West Sullivan	0.00	8.99	8.99	3.37	20.22	25.84	32.58

Table 21

Response to Item 22 "Prepare for and participate in a job interview" by School in Row Percent

School	Response Option 0	1	2	3	4	5	6
Bethel	0.00	2.60	3.90	9.09	22.08	33.77	28.57
Bingham	0.00	8.70	4.35	8.70	13.04	34.78	30.43
East Corinth	1.11	3.33	0.00	7.78	15.56	24.77	47.78
Eastport	0.00	4.26	10.64	14.89	23.40	21.28	25.53
Howland	0.00	6.14	1.28	6.41	5.13	23.08	57.69
Lincoln	0.00	3.81	1.90	6.67	13.33	28.57	45.71
South Portland	0.00	2.45	4.90	8.57	20.82	28.98	34.29
West Sullivan	2.25	4.49	4.49	14.61	16.85	28.09	29.21

Table 22

Response to Item 41 "Complete a job application" by School in Row Percent

School	Response Option 0	1	2	3	4	5	6
Bethel	0.00	7.79	1.30	3.90	24.68	32.47	29.87
Bingham	8.70	4.35	4.35	0.00	8.70	30.43	43.48
East Corinth	0.00	6.67	0.00	6.67	12.22	20.00	54.44
Eastport	0.00	10.64	6.38	4.26	23.40	31.91	23.40
Howland	0.00	5.12	1.28	0.00	14.10	13.38	64.10
Lincoln	0.00	4.76	1.90	5.71	12.38	30.48	44.76
South Portland	0.00	6.53	2.86	7.76	18.78	25.31	24.72
West Sullivan	1.12	5.62	3.37	11.24	21.35	24.72	32.58

Table 23

.Response to Item 46 "Write an effective resume" by School in Row Percent

School	Response Option 0	1	2	3	4	5	6
Bethel	0.00	1.30	6.49	6.49	16.88	36.36	32.47
Bingham	4.35	8.70	4.35	8.70	4.35	13.04	56.52
East Corinth	0.00	5.56	2.22	12.22	16.67	25.56	37.78
Eastport	2.13	6.38	8.51	8.51	14.89	29.79	29.79
Howland	0.00	2.56	10.26	5.13	7.69	29.49	44.87
Lincoln	0.00	1.90	3.81	6.63	8.57	26.67	52.38
South Portland	0.82	4.08	3.67	11.43	13.88	22.04	44.08
West Sullivan	1.12	4.49	3.37	11.24	24.72	31.46	23.60

Tables 24-32 present the percent of students as they ranked the composite by "How did you get your part-time job?." Those relying on news paper ads and direct contact gave the higher importance to the competency.

Table 24

Job Seeking Round Score by Responses to "How did you get your part time job?"

Question	Job Seeking Round Score 1	2	3	4	5	6
No Response	0.40	0.80	1.99	7.69	13.53	9.02
Newspaper	0.13	0.00	0.40	0.40	1.99	0.93
Direct Contact	0.27	0.27	1.06	5.44	10.08	6.76
Friends	0.00	1.72	1.33	4.91	7.82	6.90
Parents	0.40	0.27	1.46	3.98	4.51	3.18
School	0.27	0.00	0.00	0.27	0.27	0.27
JobService	0.00	0.13	0.00	0.13	0.40	0.00
Training and Employment Agency	0.00	0.00	0.00	0.27	0.40	0.00
TOTAL	11	24	47	174	294	204
%	1.46	3.18	6.23	23.08	38.99	27.06

Table 25

Job Seeking Round Score for Students with No Part Time Work Experience by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.40	0.40
Male	0.79	1.19	2.38	10.71	17.06	8.73
Female	0.40	1.19	3.57	12.30	23.02	17.86

Table 26

Job Seeking Round Score for Students Who Found Part Time Work Through a Newspaper Advertisement by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.00	0.00
Male	3.45	0.00	10.34	10.34	31.03	6.90
Female	0.00	0.00	0.00	0.00	20.69	17.24

Table 27

Job Seeking Round Score for Students Who Located Part Time Work Through Direct Contact with an Employer by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.56	0.00
Male	1.11	0.56	1.67	13.33	22.22	11.67
Female	0.00	0.56	2.78	9.44	19.77	16.67

Table 28

Job Seeking Round Score for Students Who Located Part Time Work Through the Help of a Friend by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.58	0.00	0.00	0.00
Male	0.00	4.09	2.34	10.53	15.79	16.37
Female	0.00	3.51	2.92	11.11	18.71	14.04

Table 29

Job Seeking Round Score for Students Who Located Part Time Work Through the Help of Their Parents by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.96	0.96	0.00
Male	0.96	0.00	7.69	23.08	17.31	13.46
Female	1.92	1.92	2.88	4.81	14.42	9.62

Table 30

Job Seeking Round Score for Students Who Located Part Time Work Through Their School by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.00	0.00
Male	12.50	0.00	0.00	12.50	25.00	12.50
Female	12.50	0.00	0.00	12.50	0.00	12.50

Table 31

Job Seeking Round Score for Students Who Located Part Time Work With the Assistance of the Maine Job Service by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.00	0.00
Male	0.00	0.00	0.00	20.00	40.00	0.00
Female	0.00	20.00	0.00	0.00	20.00	0.00

Table 32

Job Seeking Round Score for Students Who Located Part Time Work Through a Training and Employment Agency by Gender

(Row Percent)

Gender	1	2	3	4	5	6
Not Given	0.00	0.00	0.00	0.00	0.00	0.00
Male	0.00	0.00	12.50	20.00	40.00	0.00
Female	0.00	0.00	0.00	20.00	20.00	0.00

Table 33 presents the match between the job seeking competency area and CDM. The majority of the students matched two of their major interest areas.

Table 33

Number of Matches between Self-Selected Work Environment and Assessed Work Environment by Job Seeking Round Score

(Table Percent)

Job Seeking Round Score	Number of Matches 0	1	2	3	3/same
1	0.00	0.49	0.82	0.16	0.16
2	0.00	1.32	1.15	0.33	0.33
3	0.16	0.82	3.46	0.49	0.49
4	0.66	4.28	13.34	3.29	1.48
5	0.33	8.07	21.09	6.92	2.47
6	0.82	5.27	17.63	2.80	1.32

SUMMARY

One of the major findings of the survey was the apparent importance students placed on learner outcomes related to job seeking skills. As shown by the data, the vast majority of the students felt job seeking skills were important. It is interesting to note that students who had sought a part-time job on their own (i.e., direct contact and newspaper ads) indicated a higher level of importance for the job seeking competency area. As on other competencies, females ranked the competency higher than males.

CONCLUSION

The foregoing chapter and analysis of data have taken a look at the students' perception regarding the importance of five learner outcomes that form the broad concept area of job seeking skills. The students responses showed a high level of consistency with the composite and were similar to findings compared to other composites. Basically the study attempted to explain values in the dependent variables (items and composite) on the basis of levels in the independent variables.

Recommendations

Follow-up studies with these students will allow the researchers to link job search attitudes with behavior. Additional research needs to focus on specific behaviors compared to job search attitudes and behaviors. For example, were participants with more job search experience more likely to make direct contact with employers? Can students write a letter of application including the necessary parts and content?

As the students mature they will undoubtedly have more experience working. Participants could then be asked additional items regarding factors affecting their success in finding a job. For example, do they think their age, sex, salary expectancy, previous employment, and grades would help, would not matter, or would hurt their chances of finding a job.

These results could be combined with a local (regional or State) study of the career development status and needs of students based on the Assessment of Career Development that was administered to a national sample of 8th, 9th and 11th grades in the spring of 1973 (North et. al., 1975). This could be further supplemented with a survey of experiences (some items are already included in this survey) and evaluation of classroom and community activities. The information gathered could provide a focus for involving teachers, counselors, and administrators in shaping the school's role in a comprehensive career development program.

The existing guidance program in each school should be assessed using the student career development competencies in *The National Career Development Guidelines: Improving Guidance and Counseling Programs High School Level* (NOICC, 1987). The Guidelines provide an implementation process that assists in the redesign of guidance and counseling from an ancillary service, to a comprehensive competency-based program. Several of the competencies and indicators in the Guidelines are similar to the competencies addressed within this study.

A complimentary study or survey of employers in Maine to determine what techniques would make students' job searches more effective would provide additional valuable information for program planning. Such a study could assist educators in providing students with specific types of training based on employers opinions on how potential employees ought to market themselves. The survey should focus on those companies that employ fewer than 500 employees.

The results of this survey should be shared with teachers, administrators, counselors, parents, students, and members of the community. These represent groups typically included on a local guidance advisory group. The findings could serve as the motivation to write a comprehensive counseling curriculum with one area of emphasis being career development. To accomplish these ends, research and evaluation activities, such as those summarized in this report, are an essential step in the process of implementing a comprehensive guidance and counseling program.

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Conclusions & Implications

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Work
Family

CONCLUSIONS AND IMPLICATIONS

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As the reader who has perused the preceding pages will agree, there is a wealth of data and information therein and it would be a herculean task to summarize in full. The effort here will be to highlight what this author finds especially interesting and provocative in these essays, and to point out some limitations to the study. Then implications for further work will be enumerated and some philosophical conclusions derived.

Comments on Individual Papers

Cobb and MacBrayne

These authors underscore the elusive nature of "aspirations" as their discussion moves through educational attainment and occupational choice indices. Only in their concluding question do they interject quality of life as a possible definition of aspiration. This is of particular interest in the State of Maine, which some have described as a state of mind. While tens of thousands of people "from away" aspire to move to Maine, we have a tendency to urge our youth to set their sights on greener pastures south of the Kittery bridge. What is it that attracts the in-migrant? If a Maine youth wants to stay here for similar reasons are her/his aspirations deficient?

Another problem with aspirations research which utilizes current occupational titles is that the work world is so rapidly changing that the work environments and occupational mix of the next decade will be unlike the present. By encouraging youth to fix their sights on targets no matter how elevated which may not be there in a few years seems self-defeating. Rather, youth need to be helped to appreciate that the economy of tomorrow will require workers who are flexible, capable of continuous learning and renewal, and self-starters. Where are these qualities honored and reinforced in aspirations research?

Indeed, the whole method of aspirations research, including the Maine study, asks youth to draw some image of themselves in a future time. Yet for many youth, there is no tomorrow. They are so taken up with living today that a real tomorrow has not entered their life space. Career education has long recognized the necessity of awareness preceding planning and choosing. Our youth, when they do consider the future, see it as a fantasy like a video game, not as something that will happen to them. We need more education for awareness that one creates the future by choices made in the present in lieu of surveys of undeliberated fantasies.

Cobb and MacBrayne also report that aspirations tend to be higher than expectations. For the current youth cohort, this is realistic since this is said to be the first generation which cannot reasonably expect to have a higher standard of living than their parents. However, again the narrowness of definition of aspirations is a trap. A broader concept, an acceptance of more than material values, could still lead to expectations equal to or exceeding aspirations. For example, health and longevity of the next generation will be better than that of the parents. If aspirations to live healthier and longer in Maine were acknowledged in the research designs, we would be fashioning different interventions targeting life style and values.

The Maine students tend to expect it will be necessary to move away to find satisfying work. This conflicts with the rhetoric that good Maine jobs go to out of staters because of low Maine aspirations. The top management/ leadership kinds of posts that visibly go to out of staters require an experience base that usually is not available in Maine. Just as women have been denied top jobs because until recently they were not being brought in to middle level positions to gain experience, so the Maine youth who sets her/his sights on top jobs may have observed that the career path leads out of state to build the experience base.

In any case, Maine as a rural state shares in the phenomenon of lower aspirations. If it is desirable to raise aspirations, let us be broad in our concept of aspirations for quality of life, and let us acknowledge that those aspirations are formed subtly and early by interactions with parents and significant others. This is not a task for one grade in school.

Ryan

In his discussion of the results of the survey Ryan has inadvertently led the reader astray by his statement that "respondents are asked to describe the local labor market..." when, in fact, the instruction was to list "the importance to you" of various alternative choices. Thus, the insights to be derived from this survey are about perceptions of values, not about competence in performance.

Ryan notes that the non-college bound students in the sample did not place high value on the components of career-decision-making. Neither did the college bound according to the graphic material. This suggests that, if there is a problem, it is not a function of high school program but rather a general curriculum issue. All students need to be led to appreciate the roles of self-assessment and career awareness as part of their maturing into self-confident life planners.

On another issue which relates to getting ready for the worker role, the value of part-time work experience, Ryan notes that 61% of the sample believed this would help with future job success. This appears to contrast with the finding reported by Shannon that full-time summer work was of low value for developing life/work management competencies. If there is incongruence here, it invites further study of the actual, versus perceived, effects on employability and career development of part-time and summer work for youth. School authorities argue the merits of the cooperative education concept against the "basics" with the latter claiming that work interferes with school achievement. Guidance staff can be helpful in this debate if they gather relevant data about performance effects of work experience during the school years.

Ryan also expresses concern about the data which show that only 2% of youth found their part-time jobs through the school. He suggests this should occasion an inquiry into just what does occur in career guidance programs. This is a surprising criticism by one who is well aware that the major purpose of guidance is to generate self-assesssment, appreciation for the diversity of the world of work, skill in choosing among the diversity, and to facilitate action steps to implement a choice. Job placement is at best a minor priority of a guidance program. The data can alternatively be read as indicating the self-reliance of youth in finding jobs through the avenues most used in "the real world," direct contacts and networks of family and friends.

Ryan also views with some alarm the 48% of the sample enrolled in the college track which is inconsistent with the service-oriented Maine labor market. It is ironic that the people interested in raising aspirations of Maine youth consider the low rate of post-secondary enrollment a major problem. One should step back from the statistics on labor force and college enrollments to take a larger view of Maine youth and their futures. They will all take on roles as citizens, homemakers, and leisurites. Many will become parents. The more educated youth become, the more enrichment will they bring to all roles, not just that of worker, thus enhancing quality of life.

The 24 important recommendations which Ryan offers all focus on improvements in secondary education and the staff members therein. It is unfortunate that his summary observation that "well-defined career guidance programs start early in elementary grades" did not head the list of recommendations for it is not in grade 10, but in ten grades that the attitudinal and skill base is formed, by teachers and parents, from which youth will approach the choosing and planning tasks of senior high school.

With some prescience, Ryan has anticipated the current debate in Maine about extending the length of the school year. He calls for a modified year-round plan that would allow students to participate in career decision-making opportunities during the summer months. We presume he does not mean, making decisions. He means exploration. Some students are doing this on their own through summer employment. Without actually changing the school year, all students could be guided into more exploratory activity with workers and the work place through the thoughtful use of learning contracts developed with counselors for the practice of specific career competencies during the summer, monitored and honored by parents, and reported to peers and teachers when school reopens in the fall.

O'Shea

An appropriate assignment for one of the authors of the *Career Decision Making System* was to review that portion of the Maine survey which reported responses of students to CDM. Evidence that girls are showing interest in a broader array of work environments than heretofor will be taken as good news by those who have been concerned about gender stereotyping. There is a challenge that accompanies this trend, if indeed it persists; that is, to assure that the Maine labor market is ready to receive these aspiring young women. Still, O'Shea calls for continuing effort to assist all students to increase further the career options of which they have meaningful awareness, a task which challenges Maine counselors and teachers to find creative ways to engage students with realistic images of myriads of jobs which exist outside local boundaries.

O'Shea finds that fewer than 25% of the students in the sample were able to place a specific job in which they expressed interest in the appropriate cluster in the *Guide for Occupational Exploration*. These students are not vocational psychologists and it seems less important that they make correct placements in a theoretical taxonomy, than that they have an appreciation and understanding of the common roots which hold job families together. Thus, career educators must be certain that they are teaching concepts about the world of work rather than isolated job titles. If students are opening to more non-traditional work environments, they need to be able flexibly to move both vertically and horizontally within those environments to take advantage of change, rather than be victimized by it, as it occurs in the workplace. Understanding what clusters of jobs have in common will facilitate this movement.

Another area of confusion which emerged from the data was in the business field. O'Shea points out the inconsistent low score for the business field in contrast to higher interests in management and supervision. Drier and Ciccone point out that more than 25% of these tenth graders anticipate owning their own business. The confusion which O'Shea finds may derive from the students' interpretation of "business" in the latter sense rather than as management and supervision within a larger establishment. Again, the message here seems to be for career educators to take time to listen to students' meanings as they project themselves into a work future, rather than simply to expose them to abstract terms in inventories and career literature.

O'Shea joins with Ryan in noting some discrepancies between expressed interests and the realities of the labor market. For example, he contrasts the interests of nearly one-fifth of the sample in artistic and physical performance with the less than 1% employment data. He concludes that many of those "will have to seek alternate employment." This may be true, but as many struggling artists have demonstrated over time, their first love, their calling, is art and the alternate employment -be it waitperson or lawyer - is only a source of income. Let us also again recall the full scope of life roles through which artistic and performing interests may be expressed, rather than falling into the trap of perceiving career narrowly as paid employment. One wonders how many dropouts were discouraged from continuing in school when their non-conventional interests were ignored by the conventional wisdom of preparation for employment in mainstream occupations?

The marked difference between 1.2% interest and 18.5% employment in factory work also leads to some speculation. On one hand, parents have wanted their children to have a better life than their own which quite often means to break out of the shop and factory. On the other hand, Maine youth have witnessed their parents' generation being victimized by factory closings and unstable, seasonal work. Both of these forces may contribute to aspirations for employment outside the manufacturing sector.

Finally, Maine workers often hold several jobs during the year, either sequentially, or simultaneously. Maine youth in responding to inventories which ask for discrete choices may not be able to tell us of the richness of their dreams. We ask them to choose among stereotyped categories created by researchers. They experience daily life as a mosaic of occupations and roles for their elders and themselves. We may be asking the wrong questions, or listening with only one sense to their answers thus missing the actual meanings they use in moving on to the next developmental task.

Shannon

In this carefully researched paper, the author underscores the complexity of the career choice process by placing it in the context of foundational theories of human development. The reader is reminded that, in assessing 10th graders, our findings are subject to the variability of maturity which exists among this cohort. One proceeds with caution toward generalizations. An additional reason for caution in interpretation of survey data about competence in "managing personal responsibilities" is that this element of the survey is based on responses to just three items, to wit:

> *5. develop and maintain a personal budget*
>
> *50. apply consumer skills such as comparative shopping and budgeting for home management*
>
> *58. describe the impact of drug and alcohol abuse on employment*

In the discussion of the components of this competency offered by the *Youth Credentials Work Group*, Shannon states "the skills outlined are minimal, to say the least." If five items are minimal, how valid is data derived from three?

Having noted the limitation of sampling of behavior for this paper, we can commend the general conclusion derived that 10th grade students differ within the cohort and that career education should address homogeneous subgroups rather than be offered as a common experience for the entire group. The writer points out gender differences in responses to the competency items are statistically significant. Inspection of the three items contributing to the "managing personal responsibility" score suggests that #5 and #50 may be perceived by both boys and girls as "women's work" and therefore more important to girls. There may be less significance in the gender difference scores than meets the eye. However, the author makes some additional valid points pertaining to differential maturity levels between the sexes in early adolescence used as a rationale for proposing that career information should be presented at a different time and in a different order for girls and for boys. This happens to coincide with recommendations made at the 1988 *Expanding Your Horizons Conference* that math and science instruction should be provided separately for girls in order for them to build self-esteem to match their ability and interest without competition from the other sex.

Another subgroup to which the data dra[illegible]tention are the "undecideds" who express no ta[illegible]get for post-graduation activity. The author acknowledges a wide range of personal, social, and economic circumstances could explain individual cases. He does not return to his discussion of Piaget as an hypothesis. It may be that the "undecideds" are still in the concrete stage of cognitive development and choose the certainty of "don't know" over the personal uncertainty of other options on the survey list. These are the students with lowest grade point averages, which lends support to an hypothesis of relative immaturity as learners compared to their age mates. Rather than take their low grades as indicators for entering the labor market, as the author does, this red flag should lead guidance counselors to look beneath the surface and assess the career maturity and learning readiness of these students. They are the "late bloomers" who, as the author states, need significant intervention if their aspiration and expectancy levels are to be specified, and possibly raised.

There may be some individuals among the undecided group who are indecisive, chronically unable to make decisions about any area of life. Surely these students deserve identification and interventions which differ from those applied with the mainstream deciders and the undecideds.

The use of small group interventions would be highly appropriate to serve each of the several subgroups which have been identified by Shannon.

In addition, there is considerable merit to the proposal that instructional groups homogeneous by aspiration level be used for developing some of the career competencies. The use of Holland environmental preferences as indicators of learning styles that should be accommodated in instructional activities would enrich the experience and deepen the learning for all students. It would seem to be an exciting challenge to the creativity of teachers and counselors to use the Holland codes this way bringing a new level of excitement into career education.

In summary, the more career educators respond to individual differences in maturity and learning style, the more effective will be the programs which have as their goals the employability skills and attitudes necessary for successful entry and retention in the world of work. Attending to these individual differences would implement a developmental approach to career education providing stimulation and assistance as needed for growth toward maturity rather than as programmed in a mandated curriculum.

Kimball

Maine boys and girls have similar goals for work and family life, but their expectations for roles within the family are quite different. Each sex naively ignores the likelihood of single parent status at some future time. With these general findings, Kimball offers some constructive ideas for guidance and curriculum interventions based on a Swedish model and her own creativity.

Kimball recommends some family education should be offered in single sex groups to help girls build self-esteem thus seconding certain implications in the Shannon paper. Small group interventions would be useful for assertiveness training and esteem building before the girls move back into heterogeneous family life classes with boys in which different role expectations can be confronted, debated, and placed into the context of the realities of dual career families and subsequent role overload. The ideas for simulation activities in Kimball's Appendix 1 follow a developmental model for family life, though they stop short of the remarriage and blended family stage nor do they incorporate some of the life event crises such as career change and death of parents which add stress to relationships. Schlossberg (1984) offers a theory for dealing with adult transitions which would be a useful complement to the Kimball plan.

The Swedish model includes an element of parent education about the labor market into which their children will be moving. The Maine survey of 10th graders is silent on the role of parents in the development of employability skills and awareness of issues in work-family integration. Parents need to be perceived as support systems by and for youth as they approach and engage in career decision-making behaviors. This is difficult at a stage when adolescents are striving to gain more autonomy and independence. The school can help create conditions for comfortable parent- student communications by inviting parents to school for adult education offerings related to career development teaching them the concepts and issues that are being presented to their children. The same concepts may help those parents who themselves are facing career change issues of shifting aspirations and uncertainties about present roles and future alternatives. Parents will thus be able to meet their children on common ground.

The model also recognizes the years from age 7 to 12 as the formative period for attitudes about self and about the world of work mandating various curriculum components for both genders. While Kimball does not discuss the outcomes of the Swedish approach except to note that improvement is occurring, it appears that Maine should undertake its own program of career education through infusion into the regular curriculum of the elementary schools if by the eighth grade each student is to be "planning to realize educational potential."

Drier and Ciccone

In this paper we have the strongest reminder that the population studied, high school sophomores, are in process of maturing and should not be expected to have arrived at an adult conception of mature behavior and attitude. Further, the authors point out that there is no normative data disclosing what is "mature behavior" for a sophomore.

Even though The Center on Education and Training for Employment has identified six competency areas which make up work maturity, we do not have criteria for expected sophomore attainment in punctuality, attendance, appearance, attitude/behavior, interpersonal relations, task completion.

In spite of this caution about judging sophomore responses, this writer confesses to some dismay in contemplating Figure 6. According to this display, not one single student in the study rated "dependability and reliability" as of high importance to themselves at the time of the survey. Indeed, 115 rated these traits as having little importance. Surely, some attitude change is needed if this basic life skill is to become a central part of the self-concepts of these youths. It is not sufficient to explain this away as immaturity. It suggests a failure of role models to demonstrate the interdependence of each person in families, in classrooms, in the community.

Work maturity skills and attitudes are assumed to be acquired through daily living. Apparently that is not an assumption that holds up in many of our sophomores. Something did not happen between grades 1 and 10. All primary grade teachers post a list of rules of behavior on their classroom walls as reminders to young children who are being socialized into group living. But one wonders if the children grasp the reasons behind the rules. Are they perceived as the voice of authority, or are they felt to be the terms of a contract among peers acknowledging "I need you; you need me"? Teacher education, in the experience of this writer, in presenting techniques for classroom management does not address issues of punctuality, attendance, appearance, dependability and reliability as essential skills to be brought into pupil awareness and strongly reinforced because at a later stage of development they will be required to retain a job. Rather, teacher trainees are allowed to leave these attitudes at the implicit level while focussing on the explicit tasks of content instruction. Drier and Ciccone state that many persons are surprised to learn that good work habits can be taught directly. Let's get on with the task! Work maturity skills are among the basics.

While the authors give examples of curricula for teaching work maturity skills which work, it is as remedial programs. It seems much more desirable for basic, early education to inculcate these skills and attitudes. Thus, parents must be enlisted, encouraged, and enabled to take the lead as role models for their children, a task of no small dimension for a two parent family, not to mention the single parent. On second thought, it is not a new or an extra task at all, for parents are modeling every day their way of being responsible in interdependent relationships with their children and other adults in the home and work place. What is called for is some reinforcement by the school of positive modeling of reliability and dependability, of punctuality and task completion. Again we find career education begins in elementary school. How do career educators help the kindergarten teacher to convey to a parent group the importance of their modeling these positive career/life skills?

Drier and Ciccone underscore, as an action recommendation, the importance of assisting parents to become more effective advocates for career development of their children. They call for translation of the findings of the present study into activities which children can implement at home under parental supervision. This is a challenge to guidance counselors and career educators to develop curricula with blended at-home and in-school components in order to achieve maximum influence. Maine has an opportunity here to build into the various aspirations activities in the schools a curriculum development effort that enlists parent input at the planning stage as well as in later implementation.

Another area for curriculum work is found in the expectation by more than 25% of the sophomores that they will someday own their own business. The authors accept this as a realistic image since small business is the fastest growing sector of the labor force. In Maine with its traditions of individualism, and an enlarging service sector of the economy, this preview of the future does indeed seem a reasonable scenario at least in terms of trial if not always success in a small business. The University of Maine and the University of Southern Maine both have public service programs in support of budding entrepreneurs. The time is ripe for the design and development of a curriculum component in entrepreneurship for youth as well as adults. While it is acknowledged that the high school curriculum under the recent school improvement thrust has no room for another course, it is suggested that such a course be developed and offered through adult education programs but opened to serious-minded high school age students. Indeed, it might be a parent-child enrollment that would be encouraged in keeping with the goals sought in the preceding paragraph, and in recognition of the "family business" which has been and continues to be characteristic of Maine.

The authors pick up some "immature mismatches" between present high school programs of the sample studied and post-high school plans. It seems some of this apparent mismatch may be explained by the concrete level of cognitive development at which some of the students may be functioning as discussed in the commentary on the Shannon paper. At first this may suggest a need for more effective guidance services to close the gap between program of study and potential future, an apparent purpose of the "8th grade initiative" recently undertaken by the Department of Educational and Cultural Services. However, some preliminary findings by Phil Pratt in a doctoral study at the University of Maine analyzing a national data base present a picture of considerable instability of career plans after high school graduation. The maturing process does not climax at grade eight or grade twelve, but continues on into young adulthood. It is unreasonable to expect most sophomores to have a high level of congruence between high school program and future plans. In view of the increasing demands of the world of work for persons with higher level cognitive skills and computer literacy, however, one wonders whether the "general course" has outlived its usefulness in high schools. Students may be unready to pick a career objective, but should they be encouraged to prepare either for post- secondary training or entry into the labor force with the new employability skills? There is no third life option for which one can appropriately prepare by taking a potpourri of courses. By eliminating the general course, educators would be able to put more options and creativity into the vocational program.

McCormac

In her review of the literature, McCormac notes that small business will be the arena of much job opportunity in the future. Large corporations are downsizing, and often prefer to promote from within, so young people looking to the future should be alerted to the small enterprise as an opportunity in which to work for oneself, or to become an employee. Although she does not suggest that there are special job search techniques for contacting small business, the conventional wisdom of researching the firm to which one is going to apply is of continuing relevance for small as well as large firms. The methods of researching small firms should be included in instruction on job seeking skills, for it may take more investigative effort to learn about the products, processes, and goals of small local firms than the national giants whose missions are set forth in advertising displays in all media.

McCormac observes that the Maine students reported perceiving relatively high importance for job seeking skills with those who had part-time work rating the highest. This finding offers another reason to encourage youth to have part-time work experience during school years. The survey did not also inquire about the importance of having something to sell, skills and competencies of value to prospective employers. While this may be taken for granted by adults, it is less certain that immature sophomores can transfer their awareness of adult exhortations to get an education into the specific outcomes of that education which appear as employability skills and attitudes essential to job-getting and job-maintaining. The instruction in resume-writing which is part of job-seeking readiness programs does lead the individual to document vocational competencies, but again the underlying skills and attitudes of dependability and reliability may be assumed to be present without specific documentation. It is suggested that guidance counselors introduce the resume-writing task at the time a high school program of study is being planned so that students may proactively seek to develop, demonstrate, and document their positive employability competencies during high school while also acquiring their academic and vocational preparation.

Finally, McCormac proposes that in the follow-up research for this study some inquiry be made about the actual behaviors and competencies which students have attained to supplement the information about their perceptions of what is important. It would be important to learn at what level these students, as they graduate from high school, are able to function not only in job seeking but in all aspects of career planning and choosing. If curriculum and guidance practices are to be influenced by outcome data, that data must report performance as well as perception of performance.

Post-script

To wrap up this concluding section we will first cite a few limitations in the present study, then offer some implications for actions in four areas which flow from the data as reported and discussed by the authors. One limitation which has been noted several times is that the authors tended to depart from the actual instruction given respondents in Part II to "rate each item in regard to its level of importance to you" and to discuss the ratings as if they were either a) expressions of performance or b) perceptions of importance for adult living. Indeed, this latter language appears in the introductory material sent to the authors, so they should not be faulted. However, it is a limitation of the study that the actual wording of the survey instrument was not carried through in the analysis phase. There may well be a difference of perceived importance to one's current life as a sophomore and to one's projected adult years.

A related limitation is the absence of information about the students' comprehension of various career education terms. The validity of the results is uncertain when we are not sure that students understood the words to which they were asked to respond such as "work environments", "white collar", "labor market".

A third limitation of possible interest to statistician/researchers is the limited number of items which contributed to the subpart scores on Part II. There is a range of from 3 to 10 items behind the various scores with three parts dependent on just 3 items each, two on 4, four on 5, and two parts using 6 items as the basis for a score.

Implications for Research

In addition to correcting for the above noted limitations, this study opens the path for some inquiries which would be of more than parochial value in career development. First, there is strong evidence of the need for a determination of what level of maturity in both appreciation and behavior of career competencies characterizes 10th graders. A curriculum cannot effectively be designed to develop skills and attitudes without an understanding of the developmental age at which that instruction will be beneficial.

Second, as previously noted, research could uncover the performance levels of students on the several career competencies thus giving us more concrete information about learner outcomes from career education efforts throughout the grades. Such research could also determine the actual levels of these competencies demanded by employers and required for successful job performance. This whole area of employability skills seems to be dependent upon employer judgments rather than objective measures of performance. Comparative data on the behavior and attitudes of successful and unsuccessful young workers would provide a rational basis for curriculum planning and instruction.

Finally, information is needed about the abilities of youth to imagine the workplace of tomorrow and themselves in it. Is the ability to imagine the future a function of maturity? If so, is it appropriate to ask young concrete thinkers to describe their world fifteen years into the future and then to draw inferences from those descriptions about their competency to deal with that world? Or is it the responsibility of adults to describe in concrete terms alternative scenarios of a future and lead students in exploration of the implications here and now which derive from each scenario?

Implications for Guidance Curriculum

In her recent book, *In the Age of the Smart Machine*, Shoshana Zuboff (1988) describes the qualitative changes already taking place in America's workplaces due to the informating power of computers. Not only is the content of jobs changing, as with automation, but the emerging jobs demand a higher level of cognitive skill of each worker in order to take advantage of and creatively utilize the massive flow of information which appears on the computer screen. The worker at the screen now has access to all the information which in earlier work places was retained by the managers. To capitalize on the new workplace opportunities the workers must be able to tolerate ambiguity, to solve original problems rather than follow rote instructions, and to function cooperatively in a team of peers rather than as a crew member in a hierarchy.

Are sophomores in Maine high schools aware of this new workplace? Are their counselors and teachers? Do the employability skills which were essential for hierarchical, industrial America fulfill the needs of the emerging system?

If an integrated career guidance curriculum is to be implemented in Maine schools, it should prepare students for the world of tomorrow, not yesterday. It is a cliche that rapid change is the single most predictable element of the future. But we continue to use a 20th century industrial curriculum model to inculcate "the basics" even as our youth complete schooling which will launch them into a work force that will be on the job nearly half way through the 21st century. We also persist in viewing career education as a task of secondary school while ignoring the evidence that attitudes toward self and the world are formed in pre-school and elementary grades through the influence of parents and significant others, not from instruction.

A career guidance curriculum for the first half of the next century needs to stress the skills of becoming rather than arriving for no longer can one prepare for a job, enter and maintain oneself in it until retirement. We know that jobs change; we know that individuals change with time; we know that life events introduce change. We must stop asking youth to pick one scenario for their futures and teach them to maintain openness to multiple scenarios. They need the decision making skills we have long advocated but they need to apply these in the context of uncertainty.

We have come to appreciate that work is only one of many roles in a complete life, and for some it may not be the salient role. We need to teach youth to anticipate and honor all roles and to express their aspirations for a quality of life rather than for a milestone along the way such as college entry or job title at age 30. Then we must help them discover how a planning process which includes some tolerance for ambiguity can take present circumstances and resources and build a career path which leads, probably through a series of branching options and unforeseen events, to near achievement of the dream, and a modification of that dream and the beginning of a new search.

If these are the ends of the new career curriculum, the methods include structured involvement with the world of work as it is and as it is becoming. Traditional classroom vicarious experience of the work world through print materials and computers must be complemented by actual work experiences both in school and in community. The concept of school-as-work can convert school routines into the reinforcement of employability skills. Cooperative education and part-time work experience can test, and support, the worker attitudes which enhance initial employability. Parents are an underutilized resource which must be picked up by the career education program, not just for the world experience they have and can share, but as models and reinforcers of responsibility in an interdependent family, community, and work place. The use of small group learning and problem-solving in school can set the stage for the work place teams essential in the informating environment. Computer literacy, written and oral communications, and human relations skills are "basics" for tomorrow. Finally, we need a career curriculum which acknowledges the variability in cognitive and career maturity levels among cohorts of a given chronological age. Guided by a goal of career competency for all, students can be met at their level of maturity by counselors and teachers who offer structured activities to expand awareness of self, to confront the emerging work place, to explore alternative scenarios of the rainbow of life roles, and to practice decisonmaking with uncertainty.

Implications for Counselor Education

It is reported from surveys and believed by many that guidance counselors are ineffective in assisting career planning and that this is due to their lack of current information about the world of work and/or their preoccupation with other facets of their jobs. Just as workers must be prepared to keep up with changes in the nature of work, so must counselors be educated to engage in independent learning about the economy and the labor market. Robert Hoppock

(1976) exhorted counselors to get out of the school one day a week to visit the establishments which would employ the next graduating class and to bring back to the school information about the emerging needs of employers which should cause curriculum change. One day a week is probably not realistic, nor can a Maine counselor find in most local communities the future employers of their students, but a habit must be established during counselor training of scanning the news magazines and the major papers for trends in the workplace as a supplement to perusal of the *Occupational Outlook Quarterly* and other sources of future projections of the employment scene. There also needs to be first hand exposure to the workplace for counselors through scheduled job shadowing and summer employment to put personal meaning into the data available in computer information systems.

Counselors need to be educated about life long career development, not just the phase which occurs during adolescence. This means being knowledgeable about stages of career maturity in children, in youth, and in adults. Knowing about the external world of work is necessary but insufficient to facilitate career development. Counselors need to understand the origins and functions of what Levinson (1978) calls *The Dream* and appreciate that it is related to the concept of a "calling" or what Anna Miller-Tiedeman (1988) denotes as the career compass. There are inner sources of direction and motivation to be honored equally with the externally-induced aspirations.

Counselors need to be taught to make time to participate with students and clients in detecting the meanings which they are creating from exploratory experience: computer searches, inventories, job-shadowing, part-time work. The business of planning, choosing, and implementing a life career is a continual process of assimilating new information, translating that information into personal meanings, and reaching a personal accommodationwith the implications of those meanings. Clients act on their own meanings whether or not they coincide with the consensus reality around them. Counselors must have time and skill to elicit the personal meanings, reflect them back to clients in the context of consensus reality, and assist the client to follow their own meanings to the next step in career development. The use of small groups of peers for processing individual meanings requires the guidance of a counselor or teacher. Thus training in group work is an essential for the counselor who would be a facilitator of career development and a leader of the school staff in implementing a career guidance curriculum.

Counselor education needs to improve the skills of counselors for conducting action research. In a previous paragraph some ideas for continuing research have been suggested following on from the survey which is reported in these collected papers. Inquiry into the learner outcomes of career education in the form of job related skills and attitudes is both a research project and a useful follow-up evaluation process. Assessment of career maturity of various cohorts of young people could make a significant contribution to professional knowledge. But counselors need to feel more comfortable with research design, procedures, and analysis than they now do.

Implications for Teacher Education

Career education is a responsibility of all teachers, through their subtle but deliberate reinforcement of basic skills and attitudes of employability, through their own modeling of healthy integration of multiple life roles, and through their planned curriculum interventions which develop self- awareness and exploration of the world of work.

To adequately prepare for this responsibility, pre-service teachers need to be introduced to the concepts of career education and career maturity as part of their study of human development and curriculum. It is not advocated that there be a separate course on career education in the college curriculum. Rather, the concept of infusion should be demonstrated in methods courses where career information can be incorporated among the course objectives. Maximum exposure to role models in non-traditional occupations should be emphasized throughout college years so that it becomes second nature for teachers to de-stereotype their own thinking and that of their pupils, as well as removing the sexist and ageist residue from textbooks.

Teacher training needs to include an orientation to family life education not as a separate subject, the responsibility of the home economics teacher, but as an integral portion of any academic subject which approaches the exploration of human relationships, roles of family members, and the fundamental values of society. Language arts, history and social studies, and the sciences each provide windows of opportunity for raising awareness and exploring the economic, social, and cultural diversity which is the context for role definition and life planning by young people. Pre-service teachers need to learn how to enter into partnerships with parents to support academic growth and achievement. Equally important is the collaboration in that partnership on tasks of building self-esteem, of developing self-directed dependability and reliability, of nurturing career maturity.

Finally, teachers and school administrators need to discuss in courses on philosophy of education what they really mean when they set out to raise aspirations of youth. Just as the philosophy of guidance is to provide support and encouragement for all children to realize their deepest potential as members of an interdependent society, so the school curriculum needs to address the development of the "Beans of Egypt, Maine" just as much as it needs to promote enrollment of the "dean's list" students in prestigious colleges.

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Work Family Integration Study Appendices

A: R.C.D.G. Recommendations

B: Survey Instrument

C: Competency Areas

D: Characteristics of Participants

Work

Family

WORK FAMILY INTEGRATION SURVEY

APPENDIX A:

RCDG RECOMMENDATIONS

RCDG Recommendations for Further Consideration & Action

In December of 1988, the Maine Occupational Information Coordinating Committee sponsored a research conference for the Rural Career Development Group to examine the findings of the 1987 survey. Following are the findings that conference participants recommended for further consideration and action.

1. Provide local educational agency personnel with individual student data to assist counselors in their work with students. (DC3)

2. Give information to parents in order that they might become more effective advocates for the career development and aspirations of their children. (DC6)

3. Follow-up studies with these students will allow the researchers to link job search attitudes with behavior. Additional research needs to focus on specific behaviors compared to job search attitudes and behaviors. (MB1)

4. Assess the guidance program in each school using the NOICC National Career Development Guidelines to assist in any redesign of guidance and counseling services. (MB4)

5. Continue to develop high school programs for all students that will focus on the development of career decision making skills. (R1)

6. Develop programs to expand career awareness programs throughout the school system. The data indicates the college-bound were in the majority in rating this competency and saw it as of high value in relation to the other reporting groups. (R3)

7. Develop a seminar series for delivery of parental group meetings throughout the state that would focus on career decision making and career options that are available. (R14)

8. Develop a plan for expanding partnerships between school and the business/industry community to enhance the quality of career awareness in Maine. (R18)

9. Develop a plan for increasing the Maine high school graduation rate. National data indicates that only 78.6% were completing high school in 1984, with a loss of about 21% to marginal jobs. (R22)

Findings Recommended for Further Action

10. Develop a plan to examine the basic structure of school, e.g.: a twelve month school year with variable graduation points; this would require fundamental changes in existing school policy. (R23)

11. Develop programmatic initiatives which will assist all youth to obtain appropriate self knowledge in order to make life, educational and career decisions. (Self Assessment) (S1)

12. Develop program initiatives that will ensure that all students gain an awareness of the world of work and relate this awareness to personal skills, aptitudes and desires. (Career Awareness) (S3)

13. Develop programmatic strategies which teach students problem solving skills and ways to apply these skills to the domains of (1) learning to learn, (2) learning to live, and (3) learning how to make a living. (Problem Solving/Coping) (S9)

14. Based upon the Research for Better Schools' Experienced Based Career Education Program, develop and implement academic resource centers which focus on the development of language, communication, math, career & educational planning, science, and employability skills that would be accessible to all Maine people, grade nine through adult. (S17)

Recommendations from 1987 Work Family Integration Survey

DC1. Prepare a baseline set of data for use within a continuing career development study.

DC2. Add insights for educational planners, state planners and university personnel to develop strategies to achieve excellence in career guidance delivery in Maine, K - Adult.

DC3. Provide local educational agency personnel with individual student data to assist counselors in their work with students.

DC4. Evaluate the instrumentation for replication with other school systems.

DC5. Utilize findings to recommend specific curriculum activities for students with similar profiles.

DC6. Give information to parents in order that they might become more effective advocates for the career development and aspirations of their children.

MB1. Follow-up studies with these students will allow the researchers to link job search attitudes with behavior. Additional research needs to focus on specific behaviors compared to job search attitudes and behaviors.

MB2. In subsequent surveys additional items could be included to assess factors relating to success in finding a job.

MB3. Combine results with local, regional, state, or national assessment of career development. This could be supplemented with a survey of experiences, and evaluation of classroom and community activities.

MB4. Assess the guidance program in each school using the NOICC National Career Development Guidelines to assist in any necessary redesign of guidance and counseling services.

MB5. Undertake a complimentary study of Maine employers to determine impressions of student competence in occupational settings.

MB6. Offer results to a local guidance advisory group who would be charged with the responsibility for preparing a renewed guidance curriculum.

M1. Incorporate the results of the 1987 survey within a study overtime.

Work Family Survey Recommendations

M2. Local schools could employ various assessment techniques to investigate possible gender differences in development of career competence.

M3. Schools may consider offering career development programming that is focused to individuals of certain levels of career maturity.

M4. Career development programming can be development that will take student cognitive style (using Holland's work environment model or MBTI theory) into account.

M5. Are career decided students really decided? Local educational agency personnel need to challenge learner decision making processes in order for students to not only reach a decision but to reach the personally optimum decision.

R1. Continue to develop high school programs for all students that will focus on the development of career decision making skills.

R2. Develop plans for improving the training of school counselors in the areas of career decision making.

R3. Develop programs to expand career awareness programs throughout the school system. The data indicates the college-bound were in the majority in rating this competency and saw it as of high value in relation to the other reporting groups.

R4. Develop plans to train educators in the use of labor market information through in-service teacher training programs. A series of incentives for in-services programs to assess needs and strategies for developing skills among high school students in career decision making would be appropriate.

R5. In preparing a program that would focus on career choice, it is important that this receive greater emphasis in the public school curriculum in Maine as it was rated of high value by students in the college track.

R6. Develop specific career awareness programs for students in business, cooperative education, vocational education, college and the general program, with integrative concluding material.

R7. develop a program to train Maine educators in the realities of local and regional job markets. Technology shifts will require people trained in health services, information services, and telecommunications and this information must be communicated to educators.

R8. Develop a plan for revising a high school curriculum to include career decision making as a formal curriculum offering. It may be necessary to lengthen the school day to fully implement this recommendation.

Work Family Survey Recommendations

R9. Develop a plan for giving credit for part-time work experience for those students who participate in labor market activities. Guidance counselors should develop this type of information in presenting a career decision making program.

R10. Develop a funding plan for publicizing career options and training opportunities in the State of Maine.

R11. Establish a task force to review school counselor certification requirements in relation to the changing career world in which counselors must be trained.

R12. Review counselor training programs at both the University of Maine and the University of Southern Maine to determine if they are adequately servicing the career development component in training counselors for work in public schools.

R13. Develop a plan to increase dissemination efforts for informing counselors, school psychologists, and teachers in the career decision making competency and its use in the school.

R14. Develop a seminar series for delivery at parental group meetings throughout the state that would focus on career decision making and career options that are available.

R15. Establish a task force of school counselors and teachers to develop career guidance strategies for working with tenth to twelfth graders. The data indicates that only four per cent saw the counselor as having much influence in their career planning.

R16. Develop a television series to publicize Maine career opportunities and have this program based in solid labor market research.

R17. Establish a funding pool for mini-projects that would address marketing, recruiting, and career needs of Maine youth and what information is needed to assist them in the career decision making process.

R18. Develop a plan for expanding partnerships between school and the business/industry community to enhance the quality of career awareness in Maine.

R19. Develop a research project to identify the link between highly motivated youth in vocational classes and the acquisition of academic skills.

R20. Develop a Maine rural job creation policy with incentives for school districts who would identify local needs and tie school programs to them.

Work Family Survey Recommendations

R21. Develop a process and plan to use telecommunications for reaching rural schools who are often isolated and disadvantaged in terms of having accurate labor market information.

R22. Develop a plan for increasing the Maine high school graduation rate. National data indicates that only 78.6 % were completing high school in 1984, with a loss of about 21 % to marginal jobs.

R23. Develop a plan to examine the basic structure of school, e.g.: a twelve month school year with variable graduation points; this would require fundamental changes in existing school policy.

R24. Develop a seminar series for teachers and counselors that focuses on attitudes toward the poor and disadvantaged who live in rural areas and need to be apprised of labor market information.

S1. Develop programmatic initiatives which will assist all youth to obtain appropriate self knowledge in order to make life, educational and career decisions. (Self Assessment)

S2. Develop programmatic strategies which will reduce bias and stereotyping as a barrier to career choice. (Self Assessment)

S3. Develop program initiatives that will ensure that all students gain an awareness of the world of work and relate this awareness to personal skills, aptitudes and desires. (Career Awareness)

S4. Develop program initiatives which will introduce students to labor market concepts so that students will be able to make educational and career choices based on national, state and local labor market and career information. (Labor Market Information)

S5. Develop programmatic strategies that will teach students the decision making process and relate that process to career and educational decision making. (Career Choice)

S6. Develop programmatic strategies which will ensure that students recognize and value the path goal relationships between education and training and future career options. (Career Choice)

S7. Develop programmatic strategies which will allow students to recognize barriers to employment and ways of overcoming those barriers. (Career Choice)

S8. Develop programmatic strategies which teach students ways of managing personal responsibilities (i.e. maintain a personal budget, time management, substance abuse issues). (Managing Personal Responsibilities)

Work Family Survey Recommendations

S9. Develop programmatic strategies which teach students problem solving skills and ways to apply these skills to the domains of (1) learning to learn, (2) learning to live, and (3) learning to make a living. (Problem Solving/Coping)

S10. Develop programmatic strategies that will teach job seeking and keeping processes as life long skills. (Job Seeking)

S11. Develop classroom and community based strategies which will teach and require dependability and reliability on part of the students. (Dependability/Reliability)

S12. Develop classroom, guidance and special project activities which will require effective two way communication. (Communication Skills)

S13. Develop classroom, extra-curricular and community based which will focus on personal relations skills and emphasize the need for cooperating with others and working within a chain of command. (Personal Relations)

S14. Develop teaching strategies that allow students to exhibit personal initiative and be awarded for their productivity. (Initiative/Productivity)

S15. Develop teaching strategies that introduce students to the concepts of worker and employer rights. (Worker Rights)

S16. Develop programmatic initiatives that will focus on family issues and the need for the acquisition of work family integration skills. (Work Family Integration Skills)

S17. Based upon the Research for Better Schools' Experienced Based Career Education Program, develop and implement academic resource centers which focus on the development of language, communication, math, career & educational planning, employability, and science skills that would be accessible to Maine people grade 9 - adult.

WORK FAMILY INTEGRATION SURVEY

APPENDIX B:

SURVEY INSTRUMENT

THE 1987 EMPLOYABILITY AND WORK/FAMILY INTEGRATION SURVEY
CONDUCTED BY
THE MAINE OCCUPATIONAL INFORMATION COORDINATING COMMITTEE
FOR THE
RURAL CAREER DEVELOPMENT GROUP

PART I:

===

This survey provides you with the opportunity to respond to a series of items that relate your education to preparation for work and making life and career decisions. Please complete the following by either filling in the blanks or circling the appropriate choice to the right of each item. All responses will be held in strictest confidence.

1. NAME OF SCHOOL: ____

2. CODE NUMBER: __________________________ [1]

3. GENDER: 1 = MALE 2 = FEMALE 1 2 [2]

4. AGE: __________________ [3]

---

5. HIGH SCHOOL PROGRAM OF STUDY: (Select one):

   1. GENERAL
   2. VOCATIONAL
   3. BUSINESS
   4. COLLEGE
   5. COOPERATIVE EDUCATION
   6. OTHER __________________________ 1 2 3 4 5 6 [4]

6. IMMEDIATE PLANS UPON GRADUATION FROM HIGH SCHOOL (Select one):

   1. ENTER THE WORK FORCE
   2. ENTER THE ARMED FORCES
   3. ATTEND A VOCATIONAL TECHNICAL SCHOOL
   4. ENTER AN APPRENTICESHIP PROGRAM
   5. GO TO A TWO OR FOUR YEAR COLLEGE
   6. GET MARRIED AND RAISE A FAMILY
   7. OTHER __________________________
   8. DON'T KNOW 1 2 3 4 5 6 7 8 [5]

7. BASED UPON YOUR ACADEMIC RECORDS, ARE YOU

1. AN "A" STUDENT
2. A "B" STUDENT
3. A "C" STUDENT
4. A "C/D" STUDENT

1 2 3 4 [6]

8. DO YOU INTEND TO BE LIVING IN MAINE WHEN YOU ARE THIRTY YEARS OLD?

1 = YES 2 = NO

1 2 [7]

9. WHEN YOU ARE THIRTY YEARS OLD, HOW MUCH MONEY DO YOU THINK YOU WILL BE MAKING?

1. WILL NOT BE WORKING
2. LESS THAN $9,000 PER YEAR
3. BETWEEN $10,000 AND $14,000 PER YEAR
4. BETWEEN $15,000 AND $19,000 PER YEAR
5. BETWEEN $20,000 AND $24,000 PER YEAR
6. BETWEEN $25,000 AND $35,000 PER YEAR
7. BETWEEN $36,000 AND $49,000 PER YEAR
8. MORE THAN $50,000 PER YEAR

1 2 3 4 5 6 7 8 [8]

10. IN THE SPACES BELOW ENTER THE NAME OF THE CURRENT OR LAST JOB HELD BY YOUR PARENT/PARENTS. IF ONE PARENT DOES NOT WORK OUTSIDE THE HOME AND IS A HOMEMAKER, ENTER THAT TITLE. ENTER NONE FOR NO RESPONSE.

MOTHER'S JOB: ______________________________ [9]

FATHER'S JOB: ______________________________ [10]

11. WORK ENVIRONMENTS

Review the six items listed below. Please rank order the six items. On the line next to the MOST APPEALING, write the number of the work environment that most appeals to you. Then continue to rank order the remaining items.

WORK ENVIRONMENTS:

1. Involves concrete mechanical activities, physical movement, and may occur outdoors or indoors working with tools and objects.
2. Involves abstract reasoning, creativity, and the desire to work more with ideas and concepts, often in the scientific area, than with people.
3. Involves the use of the senses and the imagination in the development of creative products and activities.
4. Involves caring for people and helping them to lead better lives.
5. Using communication and social skills to persuade, direct, and control others in decision making situations or selling products.
6. Involves working in a clearly defined, structured, systematic, and routine job.

RANK ORDER EACH ITEM DESCRIBED ABOVE IN THE SPACES PROVIDED BELOW.

MOST APPEALING ____________________ [11]

SECOND ____________________ [12]

THIRD ____________________ [13]

FOURTH ____________________ [14]

FIFTH ____________________ [15]

LEAST APPEALING ____________________ [16]

12. WHICH OF THE FOLLOWING DESCRIPTORS BEST DESCRIBES YOUR CURRENT PLANS FOR WORK?

    1. WORKING FOR MYSELF
    2. WORKING FOR A COMPANY IN A WELL DEFINED JOB
    3. WORKING IN A SUPERVISORY POSITION IN A COMPANY
    4. WORKING IN A KEY MANAGEMENT POSITION IN A COMPANY

1 2 3 4 [17]

13. WHICH OF THE FOLLOWING DESCRIPTORS BEST DESCRIBES YOUR CURRENT PLANS FOR EDUCATIONAL ATTAINMENT?

1. EARNING A HIGH SCHOOL DIPLOMA
2. EARNING A DEGREE FROM A 2 OR 4 YEAR VOCATIONAL TECHNICAL INSTITUTE
3. EARNING A DEGREE FROM A 2 YEAR BUSINESS SCHOOL
4. EARNING A 2 YEAR DEGREE FROM A LIBERAL ARTS COLLEGE
5. EARNING A BACHELOR'S DEGREE FROM A FOUR YEAR COLLEGE
6. EARNING A MASTER'S DEGREE
7. EARNING A DOCTORATE 1 2 3 4 5 6 7 [18]

14. WHICH OF THE FOLLOWING DESCRIPTORS BEST DESCRIBES THE TYPE OF WORK YOU WOULD LIKE TO DO?

1. BLUE COLLAR WORK
2. WHITE COLLAR WORK
3. PROFESSIONAL WORK 1 2 3 [19]

15. DO YOU FEEL THAT YOUR POST-SECONDARY EDUCATIONAL AND TRAINING NEEDS CAN BE MET BY SCHOOLS AND INSTITUTIONS WITHIN THE STATE OF MAINE?

1. YES
2. NO
3. DON'T KNOW 1 2 3 [20]

16. DO YOU FEEL THAT YOUR CAREER PLANS CAN BE MET WITHIN A FIFTY MILE RADIUS OF YOUR HOME TOWN?

1. YES
2. NO
3. DON'T KNOW 1 2 3 [21]

17. DO YOU FEEL THAT YOUR CAREER PLANS CAN BE MET BY EMPLOYMENT IN MAINE?

1. YES
2. NO
3. DON'T KNOW 1 2 3 [22]

18. WOULD YOU COMPROMISE YOUR CAREER PLANS TO LIVE WITHIN A 50 MILE RADIUS OF YOUR HOME TOWN?

1. YES
2. NO 1 2 [23]

19. WHICH OF THE FOLLOWING WOULD BEST DESCRIBE HOW YOU WOULD SEE YOUR WORK AND FAMILY SITUATION WHEN YOU ARE THIRTY YEARS OLD?

1. A FAMILY WITH THE MALE AS THE BREADWINNER AND THE FEMALE AS HOUSEKEEPER AND PRIMARY PARENT.
2. A FAMILY WITH THE MALE AS PRIMARY BREADWINNER AND THE FEMALE AS A PART-TIME WORKER, HOUSEKEEPER AND PRIMARY PARENT.
3. A FAMILY WITH BOTH PARENTS WORKING FULLTIME, AND FEMALE AS HOUSEKEEPER AND PRIMARY PARENT.
4. A FAMILY WITH BOTH PARENTS WORKING FULLTIME AND THE MALE THE HOUSEKEEPER AND PRIMARY PARENT.
5. A FAMILY WITH BOTH PARENTS WORKING FULLTIME AND EQUALLY SHARING HOUSEKEEPING AND PARENTING.
6. A FAMILY WITH THE FEMALE AS THE BREADWINNER AND THE MALE AS HOUSEKEEPER AND PRIMARY PARENT.
7. A FAMILY WITH THE FEMALE AS THE PRIMARY BREADWINNER AND THE MALE AS A PART-TIME WORKER, HOUSEKEEPER, AND PRIMARY PARENT.
8. MARRIED, BOTH WORKING, AND NO CHILDREN.
9. FEMALE SINGLE PARENT WITH CHILDREN, SOLELY RESPONSIBLE.
10. MALE SINGLE PARENT WITH CHILDREN, SOLELY RESPONSIBLE.
11. UNMARRIED WITHOUT CHIDLREN.
12. NONE OF THE ABOVE. 1 2 3 4 5 6 7 8 9 10 11 12 [24]

20. OF THE TWELVE DESCRIPTORS LISTED IN ITEM 19, WHICH BEST DESCRIBES YOUR FAMILY AT THIS MOMENT?

1 2 3 4 5 6 7 8 9 10 11 12 [25]

21. OF THE FOLLOWING ITEMS WHICH BEST DESCRIBES WHAT YOU WOULD CONSIDER YOUR MAIN SOURCE OF SELF FULLFILLMENT IN YOUR ADULT YEARS.

1. YOUR JOB
2. YOUR FAMILY
3. YOUR LEISURE TIME ACTIVITIES
4. OTHER ______________________________ 1 2 3 4 [26]

22. HOW MUCH TIME HAVE YOU SPENT EVALUATING YOUR SKILLS, INTERESTS, AND ATTITUDES AS THEY RELATE TO WORK AS AN ADULT?

1. A GREAT DEAL OF TIME (MORE THAN 20 HOURS)
2. BETWEEN 10 AND 20 HOURS
3. BETWEEN 0 AND 10 HOURS
4. HAVEN'T GIVEN THIS MUCH THOUGHT AT ALL. 1 2 3 4 [27]

23. COMPARED TO OTHER STUDENTS IN THE MAJORITY OF YOUR CLASSES ARE YOUR ABILITIES

1. HIGHER?
2. THE SAME?
3. LOWER?

1 2 3 [28]

24. TENTATIVE CAREER GOALS

BELOW AND ON PAGE SEVEN, YOU WILL FIND FOUR SETS OF ITEMS CONSISTING OF THREE DESCRIPTORS THAT DESCRIBE OCCUPATIONAL INTEREST AREAS. READ EACH SET AND RANK ORDER EACH SET FROM THE MOST APPEALING TO THE LEAST APPEALING. THEN IN THE FOUR SPACES ON PAGE SEVEN, LIST THE NUMBER OF THE TOP RANKINGS IN EACH SET. FROM THESE TOP RANKED ITEMS SELECT THE ITEM WHICH BEST DESCRIBES YOUR CURRENT CAREER GOAL.

SET I

RANK ORDER

______ 1. A JOB WHERE YOU WOULD BE ASKED TO SHARE YOUR IDEAS. YOU MIGHT ALSO BE ASKED TO EXPRESS YOUR FEELINGS OR OPINIONS.

______ 2. A JOB WHICH WOULD INVOLVE DOING A LOT OF SCIENTIFIC RESEARCH. AT THE SAME TIME, YOU WOULD USE INFORMATION TO SOLVE PROBLEMS IN THE MEDICAL OR SCIENCE FIELDS.

______ 3. A JOB WHERE YOU WOULD BE WORKING WITH PLANTS OR ANIMALS, USUALLY OUTDOORS.

SET II

RANK ORDER

______ 4. A JOB WHERE YOU WOULD BE ENFORCING THE LAW OR PROTECTING PROPERTY AND PEOPLE.

______ 5. A JOB IN WHICH YOU WOULD USE MACHINES OR HANDTOOLS TO BUILD OR MAKE PRODUCTS.

______ 6. A JOB WHICH YOU WOULD BE DOING THE SAME THING OVER AND OVER. THESE JOBS WOULD PROBABLY BE FOUND IN A FACTORY.

SET III

RANK ORDER

______ 7. A JOB WHICH WOULD REQUIRE THAT YOU PAY ATTENTION TO DETAIL OR WORK WITH COLUMNS OF FIGURES. MOST OF THIS WORK WOULD BE IN AN OFFICE.

______ 8. A JOB WHERE YOU WOULD TRY TO CONVINCE OTHER PEOPLE TO DO CERTAIN THINGS. YOU MIGHT ALSO BE TRYING TO CONVINCE THEM TO BUY CERTAIN PRODUCTS.

______ 9. A JOB WHERE YOU WOULD BE DOING THINGS FOR OTHER PEOPLE. MOST OF THIS WORK WOULD BE DONE ON A ONE-TO-ONE BASIS.

SET IV

RANK ORDER

_______ 10. A JOB WHERE YOU HELP PEOPLE BY LISTENING TO THEM AND TRYING TO BE HELPFUL. YOU MIGHT BE HELPING THEM BY LISTENING TO THEIR PROBLEMS AND THEN GIVING THEM IDEAS ON HOW TO SOLVE THOSE PROBLEMS.

_______ 11. A JOB IN WHICH YOU WOULD BE A LEADER. YOU MIGHT BE IN CHARGE OF A GROUP OF PEOPLE. YOU MIGHT ALSO BE TRYING TO MAKE SURE THAT OTHER PEOPLE ARE DOING THE WORK THEY ARE SUPPOSED TO BE DOING.

_______ 12. A JOB IN WHICH YOU WOULD BE DOING PHYSICAL ACTIVITIES IN FRONT OF OTHER PEOPLE.

IN THE FOUR SPACES BELOW, WRITE THE NUMBERS OF THE TOP FOUR RANKED ITEMS OF EACH SET FOUND ON PAGES SIX AND SEVEN. WHEN YOU HAVE DONE THIS, CIRCLE THE NUMBER TO THE RIGHT FROM THIS GROUPING WHICH MATCHES YOUR CURRENT CAREER GOAL. (YOUR FIRST CHOICE)

_______, _______, _______, _______ 1 2 3 4 5 6 7 8 9 10 11 12 [29]

WORK EXPERIENCE

25. Since 7th grade, how many summers have you held a full time job?

1. None
2. One summer
3. Two summers
4 Three summers 1 2 3 4 [30]

26. Have you ever held a part time job during the school year?

1. Yes 2. No 1 2 [31]

27. If the answer to the previous questions is yes, how many hours per week did you work?

1. Less than five hours
2. Six to ten hours
3. Eleven to fifteen hours
4. Sixteen to twenty hours
5. More than twenty hours 1 2 3 4 5 [32]

28. Which of the items below best describes how you obtained your part time job.

1. A newspaper ad
2. Direct contact
3. Friends
4. Your parents
5. School
6. The Maine Job Service
7. An employment and training agency 1 2 3 4 5 6 7 [33]

29. Do you feel that part time work during the school year has interfered with your academic achievement?

1. Yes 2. No 1 2 [34]

30. Do you feel that your part time work will serve as a key ingredient towards your later success in the work force?

1. Yes 2. No 1 2 [35]

31. Have you developed any career goals as a result of your part time or summer employment?

1. Yes 2. No 1 2 [36]

32. In the spaces below, enter the job titles of those occupations which you are seriously considering entering as an adult worker. If you should have more than one job enter in order of preference.

1 Job Choice: ______________________________ [37]

2 Job Choice: ______________________________ [38]

END OF PART ONE OF THE RCDG SURVEY

RCDG EMPLOYABILITY & WORK/FAMILY INTEGRATION SURVEY
PART II:

CAREFULLY READ EACH ITEM. RATE EACH ITEM IN REGARD TO ITS LEVEL OF IMPORTANCE TO YOU ON A SCALE OF 1 - 6 BY CIRCLING THE APPROPRIATE NUMBER WITH 1 BEING OF LITTLE IMPORTANCE TO 6 BEING OF A GREAT DEAL OF IMPORTANCE.

1. Understand how sex role bias and stereotyping hinders people trying to enter the world of work.

   VALUE: 1 2 3 4 5 6 [39]

2. Understand the legal rights and responsibilities of employers.

   VALUE: 1 2 3 4 5 6 [40]

3. Locate job opportunities.

   VALUE: 1 2 3 4 5 6 [41]

4. Determine whether or not your personal values conflict with future employment opportunities.

   VALUE: 1 2 3 4 5 6 [42]

5. Develop and maintain a personal budget.

   VALUE: 1 2 3 4 5 6 [43]

6. Organize your time effectively at work and during leisure time.

   VALUE: 1 2 3 4 5 6 [44]

7. Be able to learn new tasks, solve problems and accept change on the job.

   VALUE: 1 2 3 4 5 6 [45]

8. Listen carefully and openly to the needs of others.

   VALUE: 1 2 3 4 5 6 [46]

9. Identify clusters of occupations within the world of work.

VALUE: 1 2 3 4 5 6 [47]

10. Make career goals and plan a strategy for achieving them.

VALUE: 1 2 3 4 5 6 [48]

11. Understand that what is taught in school gives us the knowledge, skills, and attitudes to become productive and satisfied workers.

VALUE: 1 2 3 4 5 6 [49]

12. Divide equally work tasks in the family setting.

VALUE: 1 2 3 4 5 6 [50]

13. Contact a prospective employer and make a favorable first impression.

VALUE: 1 2 3 4 5 6 [51]

14. Cooperate with co-workers and work within the chain of command.

VALUE: 1 2 3 4 5 6 [52]

15. Based on your values, set priorities for how you spend your time.

VALUE: 1 2 3 4 5 6 [53]

16. Describe the current local labor market.

VALUE: 1 2 3 4 5 6 [54]

17. Show that you care about the quality of your work or the product that you make.

VALUE: 1 2 3 4 5 6 [55]

18. Stick to a planned course of action or make changes to that plan based upon its success or failure.

VALUE: 1 2 3 4 5 6 [56]

19. Use techniques for coping with stress.

VALUE: 1 2 3 4 5 6 [57]

20. Identify skills and abilities that you could use in a number of career options.

VALUE: 1 2 3 4 5 6 [58]

21. Describe how various types of work can affect how you live.

VALUE: 1 2 3 4 5 6 [59]

22. Prepare for and have a job interview.

VALUE: 1 2 3 4 5 6 [60]

23. Know how to talk with children and set limits for them.

VALUE: 1 2 3 4 5 6 [61]

24. Keep an open attitude toward supervision and constructive criticism.

VALUE: 1 2 3 4 5 6 [62]

25. Relate your specific career choice to local/regional labor markets.

VALUE: 1 2 3 4 5 6 [63]

26. Understand the basics of health care and workings of the human body.

VALUE: 1 2 3 4 5 6 [64]

27. Maintain an acceptable on-the-job attendance record.

VALUE: 1 2 3 4 5 6 [65]

28. Devise plans to overcome barriers to educational choices and employment.

VALUE: 1 2 3 4 5 6 [66]

29. Describe past work experiences and relate them to future work.

VALUE: 1 2 3 4 5 6 [67]

30. Understand the relationship between family size and finances.

VALUE: 1 2 3 4 5 6 [68]

31. Follow written or oral instructions in order to complete a work task.

VALUE: 1 2 3 4 5 6 [69]

32. Describe employee benefits generally offered by employers in your home town and surrounding communities.

VALUE: 1 2 3 4 5 6 [70]

33. Develop two or three ways to solve a problem, evaluate each way, and choose the best one.

VALUE: 1 2 3 4 5 6 [71]

34. Cooperate with supervisors and co-workers.

VALUE: 1 2 3 4 5 6 [72]

35. Understand the skills and attitudes necessary to become an effective parent.

VALUE: 1 2 3 4 5 6 [73]

36. Contact employer in cases of absence or tardiness.

VALUE: 1 2 3 4 5 6 [74]

37. Describe obstacles to employment and possible ways to get around them.

VALUE: 1 2 3 4 5 6 [75]

38. Have a positive attitude towards others.

VALUE: 1 2 3 4 5 6 [76]

39. Make realistic choices regarding life and career.

VALUE: 1 2 3 4 5 6 [77]

40. Find solutions to problems within the family.

VALUE: 1 2 3 4 5 6 [78]

41. Fill out a job application.

VALUE: 1 2 3 4 5 6 [79]

42. Describe three or four jobs of interest to you.

VALUE: 1 2 3 4 5 6 [80]

43. Use effective listening skills.

VALUE: 1 2 3 4 5 6 [81]

44. Identify and state problems clearly.

VALUE: 1 2 3 4 5 6 [82]

45. Understand your rights as a worker.

VALUE: 1 2 3 4 5 6 [83]

46. Write an effective resume.

VALUE: 1 2 3 4 5 6 [84]

47. Identify abilities in one occupation that can be used in others.

VALUE: 1 2 3 4 5 6 [85]

48. Describe the daily functions of various jobs of interest to you.

VALUE: 1 2 3 4 5 6 [86]

49. Speak clearly and effectively.

VALUE: 1 2 3 4 5 6 [87]

50. Apply consumer skills such as comparative shopping and budgeting for home management.

VALUE: 1 2 3 4 5 6 [88]

51. Demonstrate that you will be reliable and dependable in a job.

VALUE: 1 2 3 4 5 6 [89]

52. Identify growth and demand occupations.

VALUE: 1 2 3 4 5 6 [90]

53. Be punctual in all aspects of your job.

VALUE: 1 2 3 4 5 6 [91]

54. Analyze problems by gathering additional information.

VALUE: 1 2 3 4 5 6 [92]

55. Select appropriate career goals.

VALUE: 1 2 3 4 5 6 [93]

56. Understand the effects of an aging society upon the workforce.

VALUE: 1 2 3 4 5 6 [94]

57. Develop communication skills appropriate to an occupation.

VALUE: 1 2 3 4 5 6 [95]

58. Describe the impact of drug and alcohol abuse on employment.

VALUE: 1 2 3 4 5 6 [96]

59. Show personal initiative and caring about the quality of work done you do.

VALUE: 1 2 3 4 5 6 [97]

60. Follow the rules and guidelines of the work place.

VALUE: 1 2 3 4 5 6 [98]

61. Complete state and federal tax forms.

VALUE: 1 2 3 4 5 6 [99]

62. Ask for an explanation when you do not understand a direction.

VALUE: 1 2 3 4 5 6 [100]

63. Understand the economic consequences of the decisions you make in regard to education, training, and employment?

VALUE: 1 2 3 4 5 6 [101]

64. Express your feelings and needs clearly.

VALUE: 1 2 3 4 5 6 [102]

THANK YOU FOR YOUR TIME AND THE EFFORT YOU HAVE TAKEN TO COMPLETE THIS SURVEY.

FOR ADMINISTRATIVE USE ONLY!

CDM INTEREST SCALE SCORES

CRAFTS: . . . . ________________[103]

SCIENTIFIC: . . . . . .________________[104]

THE ARTS: . . . . . . .________________[105]

SOCIAL: . . . . ________________[106]

BUSINESS: . . . . . . .________________[107]

CLERICAL: . . . . . . .________________[108]

WORK FAMILY INTEGRATION SURVEY

APPENDIX C:

COMPETENCY AREAS

QUESTIONS RELATED TO SPECIFIC COMPETENCIES

SELF ASSESSMENT

1. Understand how sex role bias and stereotyping hinders people trying to enter the world of work.

4. Determine whether or not your personal values conflict with future employment opportunities.

20. Identify skills and abilities applicable to career options.

29. Describe past work experiences and relate them future work.

37. Describe obstacles to employment and possible ways to get around them.

CAREER AWARENESS

9. Identify clusters of occupations within the world of work.

11. Understand the relationship between what is taught in school and its application in the world of work.

21. Describe the relationship between work and life style.

42. Describe some specific jobs of interest to you.

48. Describe the daily functions of various jobs of interest to you.

56. Understand the effects of an aging society upon the workforce.

LABOR MARKET INFORMATION

16. Describe the current local labor market.

25. Relate your specific career choice to local/regional labor markets.

52. Identify growth and demand occupations.

THE RCDG WORK FAMILY INTEGRATION SURVEY

CAREER CHOICE

10. Formulate career goals and plan a strategy for achieving them.

39. Make realistic choices regarding life and career.

47. Identify abilities in one occupation that can be used in others.

55. Select appropriate career goals.

63. Understand the economic consequences of the decisions you make in regard to education, training, and employment.

MANAGING PERSONAL RESPONSIBILITIES

5. Develop and maintain a personal budget.

50. Apply consumer skills such as comparative shopping and budgeting for home management.

58. Describe the impact of drug and alcohol abuse on employment.

PROBLEM SOLVING/COPING

1. Understand how sex role bias and stereotyping hinders people trying to enter the world of work.

18. Stick to a planned course of action or make adjustments to that plan based upon its success or failure.

28. Devise plans to overcome barriers to educational choices and employment.

33. Develop more than one solution to a problem from which to choose a likely course of action.

44. Identify and state problems clearly.

54. Analyze problems by gathering additional information.

THE RCDG WORK FAMILY INTEGRATION SURVEY

JOB SEEKING

3. Locate job opportunities.

13. Contact a prospective employer and make a favorable first impression.

22. Prepare for and participate in a job interview.

41. Complete a job application.

46. Write an effective resume.

DEPENDABILITY/RELIABILITY

17. Show that you care about the quality of work or the product.

27. Maintain an acceptable on-the-job attendance record.

36. Contact employer in cases of absence or tardiness.

51. Demonstrate that you will be reliable and dependable in a job.

53. Be punctual in all aspects of your job.

60. Follow the rules and guidelines of the workplace.

COMMUNICATION SKILLS

31. Follow written or oral instructions in order to complete a work task.

43. Use effective listening skills.

49. Speak clearly and effectively.

57. Develop communication skills appropriate to an occupation.

62. Ask for an explanation when you do not understand a direction.

PERSONAL RELATIONS

14. Cooperate with co-workers and work within the chain of command.

24. Keep an open attitude toward supervision and constructive criticism.

34. Cooperate with supervisors and co-workers.

38. Maintain a positive attitude towards others.

THE RCDG WORK FAMILY INTEGRATION SURVEY

INITIATIVE/PRODUCTIVITY

6. Organize your time effectively at work and during leisure time.

7. Be able to learn new tasks, solve problems, and accept change on the job.

59. Exhibit personal initiative and caring about the quality of work.

WORKER RIGHTS

2. Understand the legal rights and responsibilities of employers.

32. Describe employee benefits generally offered in the local area.

45. Understand your rights as a worker.

61. Complete state and federal tax forms.

WORK/FAMILY INTEGRATION SKILLS

8. Listen carefully and openly to the needs of others.

12. Divide work tasks in the family setting equally.

15. Based on your values, establish priorities for how you spend your time.

19. Use techniques for coping with stress.

23. Know how to communicate with children and set limits for them.

26. Understand the basics of health care and workings of the human body.

30. Understand the relationship between family size and finances.

35. Understand the skills and attitudes necessary to become an effective parent.

40. Find solutions to problems within the family.

64. Express your feelings and needs clearly.

WORK FAMILY INTEGRATION SURVEY

APPENDIX D:

CHARACTERISTICS OF PARTICIPANTS

THE RCDG WORK FAMILY INTEGRATION SURVEY
CHARACTERISTICS OF 1987 SOPHOMORES

TABLE 1

Survey Respondents by School

School	Frequency	Percent
Bethel	77	10.2%
Bingham	23	3.1
East Cornith	90	11.9
Eastport	47	6.2
Howland	78	10.3
Lincoln	105	13.9
South Portland	245	32.5
West Sullivan	89	11.8
TOTAL	754	

TABLE 2

Survey Respondents by Gender

Gender	Frequency	Percent
Female	376	50.3%
Male	372	49.7
TOTAL	748	

TABLE 3

Survey Respondents by Age

Age	Frequency	Percent
Unreported	17	2.3%
14	2	0.3
15	248	32.9
16	419	55.6
17	62	8.2
18	6	0.8
TOTAL	754	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 4

Survey Respondents by High School Program of Study

Program of Study	Frequency	Percent
Business	87	12.0%
College	350	48.1
Cooperative Education	4	0.5
General	123	16.9
Other	19	2.6
Vocational	145	19.9
TOTAL	728	

Table 5

Survey Respondents by Immediate Plans after High Schoo

Immediate Plans	Frequency	Percent
Apprenticeship	9	1.2%
Armed Forces	95	13.1
Vocational Education	45	6.2
Do not know	117	16.1
Marriage	25	3.4
Other	36	5.0
Enter Work Force	59	8.1
2/4 Year College	341	46.9
TOTAL	727	

Table 6

Survey Respondents by Self Reported Academic Performance

Grade Average	Frequency	Percent
A Student	65	9.0%
B Student	297	41.0
C Student	260	35.9
C/D Student	102	14.1
TOTAL	724	

Table 7

Survey Respondents by Living in Maine at Age 30

Living in Maine	Frequency	Percent
No	406	54.9%
Yes	334	45.1
TOTAL	740	

Table 8

Survey Respondents by Desired Income at Age 30

Desired Salary	Frequency	Percent
$10 - 14,000	68	9.4%
$15 - 19,000	83	11.4
$20 - 24,000	160	22.0
$25 - 35,000	168	23.1
$36 - 49,000	101	13.9
< than $9,000	20	2.8
> than $50,000	111	15.3
Will not be Working	16	2.2
TOTAL	727	

Table 9

Survey Respondents' Most Appealing Work Environments

Work Environments	Frequency	Percent
Realistic	190	25.8%
Investigative	94	12.8
Artistic	129	17.9
Social	158	21.5
Enterprising	75	10.2
Conventional	90	12.2
TOTAL	734	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 10

Respondents' Most Preferred Work Environments by Gender
Frequencies - Percents

Work Environments	Female	%	Male	%	Not Reported	%
Realistic	16	8.42	173	91.05	1	0.53
Investigative	33	35.11	61	64.89	0	0.00
Artistic	80	62.02	48	37.21	1	0.78
Social	142	89.87	14	8.86	2	1.27
Enterprising	41	54.67	34	45.33	0	0.00
Conventional	57	63.33	31	34.44	2	2.22
TOTAL (736)	369		361		6	

Table 11

Respondents' Highest Harrington O'Shea CDM Score

CDM Work Environments	Frequency	Percent
Crafts	147	
Science	86	
Arts	73	
Social	107	
Business	80	
Clerical	107	
TOTAL	600	

Table 12

Matching of Most Preferred Work Environment to Highest CDM Score

CDM Environment -	Holland Environment	Frequency	Percent
Crafts	Realistic	115	
Science	Investigative	32	
Arts	Artistic	41	
Social	Social	69	
Business	Enterprising	14	
Clerical	Conventional	38	
TOTAL		309	

CDM n = 600   Holland n = 734

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 13

Matching of Most Preferred Work Environment to Highest CDM Score by Female Gender

CDM Environment =	Holland Environment	Frequency	Percent
Crafts	Realistic	4	
Science	Investigative	12	
Arts	Artistic	28	
Social	Social	68	
Business	Enterprising	4	
Clerical	Conventional	32	
TOTAL (303 females)		148	

CDM n = 600   Holland n = 734

Table 14

Matching of Most Preferred Work Environment to Highest CDM Score by Male Gender

CDM Environment -	Holland Environment	Frequency	Percent
Crafts	Realistic	110	
Science	Investigative	20	
Arts	Artistic	13	
Social	Social	00	
Business	Enterprising	10	
Clerical	Conventional	6	
TOTAL	(291 males)	159	

CDM n = 600   Holland n = 734

Table 15

Survey Respondents by Current Work Plans Work Type

	Frequency	Percent
Management Job	100	13.4%
Self Employed	188	25.2
Supervisory Job	105	14.1
Well Defined Job	352	47.2
TOTAL	745	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 16

Survey Respondents by Current Highest Educational Plan

Educational Goal	Frequency	Percent
Doctoral Degree	42	5.8%
High School Diploma	243	33.4
Master's Degree	80	11.0
2 Yr Business College	62	8.5
2/4 Yr Vocational Tech	110	15.1
4 Yr Bachelor's Degree	158	21.7
TOTAL	727	

Table 17

Survey Respondents by Type of Work Liked

Work	Frequency	Percent
Blue Collar	158	21.6%
Professional	407	55.6
White Collar	167	22.8
TOTAL	732	

Table 18

Survey Respondents by Attending Post Secondary Education in Maine

Education in Maine	Frequency	Percent
Don't Know	233	31.4%
No	171	23.0
Yes	339	45.6
TOTAL	743	

Table 19

Survey Respondents by Meeting Career Plans within Fifty Mile Radius of Home Town

Within 50 Mi Radius	Frequency	Percent
Don't Know	150	20.2%
No	339	45.6
Yes	255	34.3
TOTAL	744	

Table 20

Survey Respondents by Meeting Career Plans in Maine

In Maine	Frequency	Percent
Don't Know	181	24.3%
No	177	23.8
Yes	386	51.9
TOTAL	744	

Table 21

Survey Respondents by Compromising Career Plans to Live within Fifty Miles of Home Town

Compromise	Frequency	Percent
No	481	65.4%
Yes	254	34.6
TOTAL	735	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 22

Differences of Current Family Structure by Projected at Age 30

Family Structure	# of Current	# at Age 30	Difference
Traditional	382	183	-199
Nontraditional	27	7	- 20
Egalitarian	172	333	+161
Childless Couple	1	85	+ 85
Male Single Parent	18	2	- 16
Female Single Parent	66	5	- 61
Unmarried Childless	11	80	+ 69
None of the Above	61	39	- 22
TOTAL	738	732	

Table 23

Survey Respondents by Source of Adult Self Fulfillment

Source of Fulfillment	Frequency	Percent
Family	350	49.5%
Job	175	24.8
Leisure	104	14.7
Other	78	11.0
TOTAL	707	

Table 24

Respondent Time Spent Evaluating Skills & Abilities

Time	Frequency	Percent
More than 20 hours	174	23.5%
Not Much Thought	161	21.7
0 to 10 Hours	222	22.9
10 to 20 Hours	185	24.9
TOTAL	742	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 25

Survey Respondents Compare Their Abilities to Peers

Ability	Frequency	Percent
Higher	178	24.3%
Lower	35	4.8
The Same	520	70.9
TOTAL	733	

Table 26

Respondents Selected GOE Interest Areas GOE

Interest Area	Frequency	Percent
Accommodating	28	4.9%
Artistic	76	13.3
Business	58	10.1
Humanitarian	76	13.3
Industrial	7	1.2
Leading	66	11.5
Mechanical	59	10.3
Physical	33	5.8
Plants & Animals	52	9.1
Protective	44	7.7
Scientific	56	9.8
Selling	17	3.0
TOTAL	572	

Table 27

Summers Working Full Time Since Seventh Grade

Summers Working	Frequency	Percent
None	347	46.5%
One	192	25.7
Two	108	14.5
Three	100	13.4
TOTAL	747	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 28

Part Time Work During the School Year

P.T. Work	Frequency	Percent
No	320	43%
Yes	425	57
TOTAL	753	

Table 29

Number of Hours Working on a Part Time Job

Hours	Frequency	Percent
Less than 5	72	15.9%
More than 2	91	20.1
Six to Ten	86	19.0
Eleven to 15	90	19.9
Sixteen to 20	114	25.2
TOTAL	0 453	

Table 30

How Did Respondents Get Their Part Time Jobs? Job

Getting Strategy	Frequency	Percent
Direct Contact	180	35.9%
JTPA	5	1.0
Through Friends	171	34.1
ME Job Service	5	1.0
Newspaper Ad	29	5.8
Parents	104	20.7
School	8	1.6
TOTAL	502	

THE RCDG WORK FAMILY INTEGRATION SURVEY

Table 31

Does Part Time Work Interfere with School?

Work Bother	Frequency	Percent
No	421	82.7%
Yes	88	17.3
TOTAL	509	

Table 32

Does Part Time Work Contribute to Future Job Success?

Key to Success	Frequency	Percent
No	212	39.5%
Yes	325	60.5
TOTAL	537	

Table 33

Does Part Time Work Contribute to Career Planning

Work Influence	Frequency	Percent
No	374	63.4%
Yes	216	36.6
TOTAL	590	